JUNE 15, 1950

MODERN MEDICINE

The Journal of Diagnosis and Treatment

Dr. Mortimer S. Falk
(see page 11)

Table of contents
page 11

A good night's rest
A good day's work

Allergic patients get both, with just 4 small doses

Comfort 'round-the-clock for your allergy patients . . . Decapryn provides long-lasting relief with low milligram dosage.

"Symptoms were relieved from 4 to 24 hours after the administration of a single dose of Decapryn—"[1]

"It was found that 12.5 mg. could be given during the day with comparatively few side reactions and yet maintain good clinical results—"[2]

prescribe

Decapryn® SUCCINATE

Brand of Doxylamine Succinate

THE LONG-LASTING LOW-DOSAGE ANTIHISTAMINE

12.5 mg. tablets, P. R. N. Also available in pleasant tasting syrup especially designed for children. 6.25 mg. per 5 cc. and 25 mg. tablets.

1. Sheldon, J. M. et al: Univ. Mich. Hosp. Bull. 14:13-15 (1948). 2. MacQuiddy, E. L.: Neb. State M. J. 34:123 (1949)

NUPERCAINAL CREAM

STOPS PAIN AND ITCHING

NEW Soothing Anesthetic

of SUNBURN | ABRASIONS | MINOR BURNS

Non-greasy . . .

Non-staining . . .

CONVENIENT 1-OUNCE TUBES

The anesthetic action of 0.5% Nupercaine effectively and safely stops pain and itching of sunburn . . . minor burns . . . skin irritations.

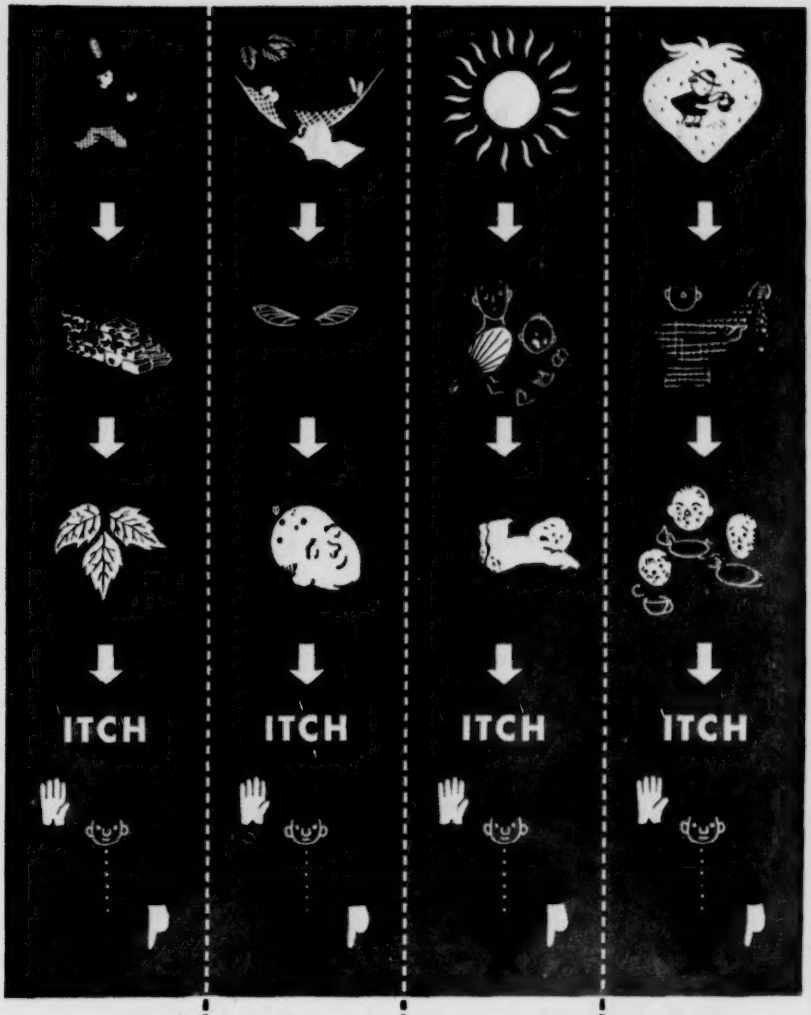
You and your patients will welcome this established local anesthetic now in new water-washable base. Relief of pain and itching begins in minutes, lasts for hours.

Nupercainal® Ointment containing 1% Nupercaine is also still available in 1-ounce tubes.

NUPERCAINE® (brand of dibucaine)

Ciba PHARMACEUTICAL PRODUCTS, INC., SUMMIT, NEW JERSEY

2/1563M



CALMITOL

Thos. Leeming & Co. Inc.

155 EAST 44th ST., NEW YORK 17, N. Y.

MODERN MEDICINE

THE JOURNAL OF DIAGNOSIS AND TREATMENT

the oral route is the simplest

For maintaining the edema-free state, here—at last—is truly effective oral mercurial diuretic therapy. One or two Tablets MERCUHYDRIN® with Ascorbic Acid daily (more when indicated) generally controls cardiac edema with

greater convenience · greater economy · greater safety

tablets MERCUHYDRIN

WITH ASCORBIC ACID

After parenteral therapy, your patient has been brought to unfluctuating basic weight. Then systematic oral therapy employing Tablets MERCUHYDRIN (brand of meralluride) with Ascorbic Acid may eliminate the need for injections entirely in mild decompensation. In more advanced cases, you can greatly reduce the number of injections required to maintain your patients free of edema.

Prolongation of the interval between injections simplifies management. The diuretic response is good, the tablets are well tolerated, the method is convenient, and the economy considerable.

Packaging: Tablets MERCUHYDRIN with Ascorbic Acid, available in bottles of 100 tablets. Each tablet contains meralluride 60 mg. (equivalent to 19.5 mg. mercury) and ascorbic acid 100 mg.

Lakeside Laboratories, INC.

MILWAUKEE 1, WISCONSIN

FREEDOM FROM OBNOXIOUS

To keep breath and body
Clean Smelling
Prescribe **ODOLEX**

FOR MOUTH ODORS DUE TO...


FOODS


ALCOHOLIC BEVERAGES


TOBACCO


METABOLIC CHANGES

FOR BODY ODORS FROM...

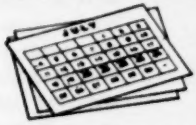

EXERCISE


NERVOUSNESS


INFECTION OR DISEASE


FOOT ODORS


URINE ODORS


MENSTRUAL ODORS

...AND MANY OTHERS

ODOLEX *is available through all prescription pharmacies*

Walker VITAMIN

BREATH AND BODY ODORS

ODOLEX

EDICAL treatment

Using a Fair and Wells osmoscope and direct smelling tests, Westcott[1] established that:

1. A single ODOLEX* tablet (100 mg.) immediately neutralized offensive breath odors . . . relief lasting for several hours or until the breath was exposed to additional sources of bad odor.

2. A single ODOLEX tablet taken at breakfast or immediately thereafter neutralized obnoxious odors due to perspiration . . . and "the effect lasts for eighteen or more hours."

SUPPLIED: Boxes of 24 foil-wrapped tablets, 100 mg. each.

1. Westcott, F. H.: Oral Chlorophyll Fractions for Body and Breath Deodorization. New York State J. Med. 50: 698 (Mar. 15) 1950.

PRODUCTS, INC. • MOUNT VERNON, NEW YORK

*Trademark of Walker Vitamin Products, Inc.

DISTINCTLY DIFFERENT

the inside story

In appearance these two tablets are the same, yet their enteric coatings differ widely in principle and reliability.

Release of medication in the intestines is uncertain with coatings which depend on gastric acidity for remaining intact and on an alkaline environment for dissolving. These conditions are variable. They are especially altered in old age, in certain diseases, and following the use of many drugs.

Reliable release in the intestines is achieved with 'Enseals' (Timed Disintegrating Tablets, Lilly). The continuous moisture of the alimentary tract ruptures their hydrophilic coating after an appropriate interval; hence, 'Enseals' rely upon a constant condition of physiology and the inevitable passage of time.

SPECIFY
ENSEALS

to avoid gastric distress from sodium salicylate or other irritating chemicals

to delay the effect for nocturnal control with such drugs as 'Histadyl' (Thenylpyramine, Lilly)

to smoothen effect through gradual release of such potent agents as diethylstilbestrol

Lilly

ELI LILLY AND COMPANY • INDIANAPOLIS 6, INDIANA, U.S.A.

Complete literature on 'Enseals' is available from your Lilly medical service representative or will be forwarded upon request.

LETTER FROM THE EDITOR..... 18

CORRESPONDENCE..... 21

QUESTIONS & ANSWERS..... 34

FORENSIC MEDICINE..... 38

SPECIAL ARTICLE

Problems in Syphilis Diagnosis and Therapy
Mortimer S. Falk..... 53

MEDICINE

Complete Heart Block
Lucien W. Ide..... 61

Gastric Polyps
James B. Carey and Lyle J. Hay..... 62

Remission of Polycythemia Vera..... 63

Cirrhosis of the Liver..... 63

Renal Lesions..... 63

Headache as an Emergency
Perry S. MacNeal..... 64

SPECIAL EXHIBIT

Continuous Brachial Plexus Block
F. Paul Ansbro and S. Potter Bartley.. 68

SURGERY

Lymphatic Metastases of Colonic Cancer
Robert S. Grinnell..... 72

Contents for June 15 1950

MODERN MEDICINE

VOL. 18, NO. 12

THE MAN ON THE COVER is Dr. Mortimer S. Falk, author of the Special Article on page 53. "Problems in Syphilis Diagnosis and Therapy." Dr. Falk practices in Philadelphia and is affiliated with the Hospital of the University of Pennsylvania, the Pennsylvania Hospital, and the Skin and Cancer Hospital of Philadelphia. He is also a consultant at the Institute for Study of Veneral Disease, University of Pennsylvania. During the war he was in the Commissioned Corps, U. S. Public Health Service, assigned to venereal disease control. Last year, as consultant to the World Health Organization, he participated in a survey of venereal disease problems in the Middle East.

Contents for June 15 1950

CONTINUED

Volvulus of Sigmoid Colon
Darrell A. Campbell and R. Glenn Smith 71

Regional Heparinization
Norman E. Freeman, Edwin J. Wylie, and Rutherford S. Gilfillan 75

Active Therapy for Mediastinal Tumors
G. Alfred Dodds 76

Relaxed Inguinal Rings 77

Nylon Feeding Tubes 77

Cancer of the Face and Mouth
Louis T. Byars 78

PEDIATRICS

Encephalograms of Infants
Hans Zellweger 79

Diagnosis and Treatment of Croup
Frederick C. Emery 80

Chalasia : a Cause of Infant Vomiting
William Berenberg and Edward B. D. Neuhauser 81

UROLOGY

Gland Dissection for Cancer of Bladder
Wyland F. Leadbetter and John F. Cooper 82

GYNECOLOGY & OBSTETRICS

Stilbestrol Vomiting 81

Endometriosis and Pregnancy 84

Primary Endometriosis 84

(Continued on page 14)

In Hypochromic Anemia

OVOFERRIN

OVOFERRIN possesses *all* the qualities so necessary to effective iron therapy . . . without the untoward effects characteristic of iron in noncolloidal, ionized form.

OVOFERRIN has palatability, easy assimilation and maximum tolerance, which makes possible effective dosage levels for all needs, in both therapy and maintenance.

For better results for more patients prescribe

OVOFERRIN the build-up without a let-down

℞ **MAINTENANCE DOSAGE**

FOR ADULTS AND CHILDREN: One teaspoonful 2 or 3 times a day in water or milk.

℞ **THERAPEUTIC DOSAGE**

ADULTS: One tablespoonful 3 or 4 times daily in water or milk. CHILDREN: One to 2 teaspoonfuls 4 times daily in water or milk.

Professional sample on request

Made only by the

A. C. BARNES COMPANY · NEW BRUNSWICK, N. J.

"Ovoferrin" is a registered trademark, the property of A. C. Barnes Company

Contents for June 15 1950

CONTINUED

Ovulation and Postovulation Pain
Daniel J. McSweeney and Robert J. Fallon 85

Recent Advances in Obstetrics
H. B. Van Wyck 86

OTOLOGY

Galvanic Skin Response and Hearing Ability
Peter Hobart Knapp and Bernard H. Gold 89

MEDICAL FORUM

Blood Pressure and Surgical Position 90

Surgery for Allergic Manifestations 94

Prescriptions for Acne 98

Cerebral Effects of Contagious Diseases 100

Medical Treatment of Gastric and Duodenal Ulcer 100

DIAGNOSTIX 102

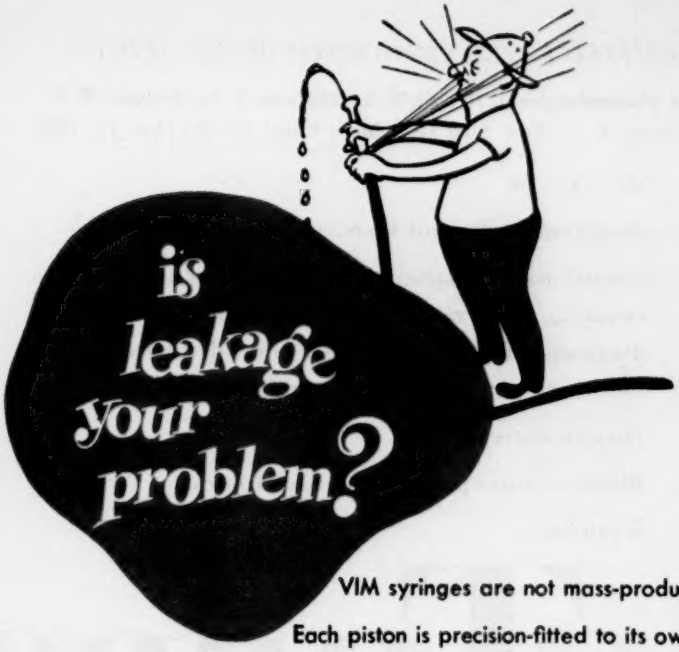
SHORT REPORTS 108

WASHINGTON LETTER 142

CURRENT BOOKS & PAMPHLETS 152

PATIENTS I HAVE MET 158

MODERN MEDICINE, The Journal of Medical Progress, is published twice monthly on the first and fifteenth of each month at Minneapolis, Minn. Subscription rate: $5.00 a year, 25c a copy. Business Manager: M. E. Herz. Address editorial correspondence to 84 South 10th Street, Minneapolis 3, Minn. Telephone: Bridgeport 1291. ADVERTISING REPRESENTATIVES: New York 17: Lee Klemmer, George Doyle, Bernard A. Smiler, 50 East 42nd Street, Suite 401. Telephone: Murray Hill 2-8717. CHICAGO 6: Jay H. Herz, 20 North Wacker Drive, Suite 1921. Telephone: Central 6-4619. SAN FRANCISCO 4: Duncan A. Scott & Co., Mills Bldg. Telephone: Garfield 1-7950. LOS ANGELES 5: Duncan A. Scott & Co., 2978 Wilshire Blvd. Telephone: Dunkirk 8-4151.



VIM syringes are not mass-produced. Each piston is precision-fitted to its own individual barrel. That is why each instrument is guaranteed to withstand greater pressure than government standards require. That is why you can be sure a VIM syringe will more than meet your most exacting requirements without leakage.

S P E C I F Y

VIM

Trade Mark Reg. U.S. Pat. Off.

hypodermic needles and syringes *Available through your surgical supply dealer*

MACGREGOR INSTRUMENT COMPANY, NEEDHAM 92, MASS.

Septicemia TREATED WITH TERRAMYCIN

Case report abstracted from: Herrell, W. E.; Heilman, F. E.; Wellman, W. E.; and Bartholomew, L. A.: Proc. Staff Meet. Mayo Clinic *25:* 183 (Apr. 12) 1950

Male, age 54

C.C.: Recurrent chills and fever.

P.I.: Started with malaise, chills, high fever and profuse sweating, temperatures as high as 105°F. Presumptive diagnosis of hepatic abscess. Several different antibiotics given intermittently, without effect.

P.H.: Diverticulitis in 1948.

Lab. Data: Blood cultures positive for Bacteroides.

Diagnosis: Septicemia.

℞ Terra

Therapy: Terramycin, 5 Gm. daily for 13 days, 4 Gm. daily for 7 days; orally in divided doses q. 6 h. with milk.

Course: Temperature began to subside after 7 days; chills ceased; temperature became normal. Patient dismissed from hospital after 20 days of treatment.

TERRAMYCIN

Dosage: *2 to 3 Gm. daily by mouth in divided dose: q. 4 or 6 h. for most Terramycin-sensitive infections.*

Supplied: *Bottles of 16 capsules, 250 mg. each capsule.*

Pfizer

CHAS. PFIZER & CO., INC.

Orally effective broad-spectrum antibiotic active against organisms in the bacterial, viral, rickettsial and protozoan groups

Recent clinical findings typical of those being obtained at over 100 leading medical research centers indicate that:

1. *Terramycin may be highly effective even when other antibiotics fail.*
2. *Terramycin may be well tolerated even when other antibiotics are not.*

mycin

On the basis of a study involving 150 patients treated with Terramycin, Knight* reports:

1. ***"Terramycin . . . possesses high activity against a wide range of infections."***
2. ***"It has not exhibited toxicity and side effects have not constituted a problem in therapy."***

****Knight, V.: Paper presented at the 144th Annual Meeting of the Medical Society of the State of New York, New York City, Section on Medicine, May 12, 1950.***

Brooklyn 6, New York

LETTER FROM THE EDITOR

Dear Reader:

Cartoons in *Modern Medicine* are frequently reprinted. But probably the one that enjoyed the largest circulation of all was one that was copied on the wall of a fishing house on a frozen lake in Michigan *(see picture below)*.

The decoration was seen by Joe Clark of Detroit, who calls himself the Hill Billy Snap Shooter. He snapped a shot and fired it off to *Life* (circulation 5,500,000), which used the picture to illustrate an article on ice fishing.

When Cartoonist Scott Taber, who drew the cartoon for *Modern Medicine,* saw the picture he sent us a clipping. "Strangely familiar," he wrote.

It was indeed, so we dropped a line to Dr. Mitton, East Tawas, owner of the shanty. Had he, by any chance, got his inspiration from *Modern Medicine?*

"Yes," wrote Dr. Mitton, a little surprised by all the publicity his modest shack had received, "I did use the cartoon in your magazine as the idea for the painting. My secretary came across the cartoon and thought it would be just the thing for the side of my fish shanty. The painting was done free hand by one of our men."

When we told Mr. Taber about Dr. Mitton's letter, he was delighted. "I shall be glad," he wrote back, "to design an appropriate mural for any future fishing shacks, gratis."

And that is the tale of a little private joke between Doctor and Editor. We hope you enjoy the others, too, that never make a fishhouse wall.

EDITOR

+ POINTS

ACCEPTED
COUNCIL ON PHARMACY AND CHEMISTRY

- + Relieves symptoms — quickly and thoroughly.
- + Cardiovascular and psychic symptoms relieved.
- + Economical.

Dosage: Initial therapy 1 (1 mg.) tablet t.i.d. after meals; maintenance therapy, 1 to 2 tablets daily.

Packaging: 30, 100, 500 and 1000.

Reed & Carnrick
JERSEY CITY 6, N.J.

— POINTS

- — Tasteless
- — Odorless
- — Unpleasant reactions— virtually unknown.

Meprane®

DIPROPIONATE TABLETS

(BRAND OF PROMETHESTROL DIPROPIONATE)

FOR MENOPAUSAL WELL-BEING

Simplify Prescription Writing

ELIXIR PEPTENZYME

Is compatible with most drugs—

- Sulfadiazine
- Sodium Bromide
- Tr. Belladonna
- Sulfaguanidine
- Atropine Sulfate
- Potassium Bromide
- Elixir Phenobarbital
- Ferric Ammonium Citrate
- Homatropine Methylbromide
- Aro. E. Cascara Sagrada Arom.
- Dry Liver Extract, U.S.P.
- Thiamine Hydrochloride
- Magnesium Trisilicate
- Bismuth Subcarbonate
- Phenobarbital Sodium
- Aluminum Hydroxide
- Sodium Salicylate
- Codeine Phosphate
- Ammonium Chloride
- Potassium Citrate
- Lugol's Solution
- Chloral Hydrate
- Cerium Oxalate
- Kaolin

Reed & Carnrick
JERSEY CITY 6, N.J.

The amazing versatility of ELIXIR PEPTENZYME—its effectiveness in disguising the taste and odor of unpleasant drugs, its compatibility with almost all commonly used drugs and its exceptional dissolving properties, has commended the preparation to physicians for over 60 years.

ELIXIR PEPTENZYME contains 16 carefully selected aromatics and 3 solvents. It is one of the most widely used pharmaceuticals.

Simplify the writing of prescriptions that appeal to your patient's palate: ELIXIR PEPTENZYME is synonymous with "good taste in medicine."

Packaging: 8 oz., 16 oz., 5 pts., and 1 gal.

Elixir Peptenzyme

PHARMACEUTICAL VEHICLE PAR EXCELLENCE

Correspondence

Communications from the readers of MODERN MEDICINE *are always welcome. Address communications to The Editors of* MODERN MEDICINE, *84 South 10th St., Minneapolis 3, Minn.*

Histamines and Trigeminal Neuralgia

TO THE EDITORS: A question in *Modern Medicine* (Mar. 1, 1950, p. 40) read, "Has a new drug been advanced for trigeminal neuralgia?" The consultant's answer was essentially in the negative.

We have had some recent experience with this condition at the Headache Clinic at the George Washington University Hospital. We are currently treating 2 patients—one a new case, the other an operative failure. Both have experienced between 75 and 100% improvement on prophylactic doses of antihistamine (Pyribenzamine in these cases). The neurosurgical service has treated approximately 6 other patients with similar results. We are at present attempting to "hyposensitize" these individuals with histamine and have reason to believe that this may be helpful.

LESTER S. BLUMENTHAL, M.D.
MARVIN FUCHS, M.D.
Washington, D.C.

Valuable Index

TO THE EDITORS: Please accept my sincere thanks for the Index to *Modern Medicine* recently sent me. I know that I will find it extremely valuable.

MORRIS FRANKLYN H. LEVY, M.D.
Brooklyn

Likes to Be Called 'Doc'

TO THE EDITORS: For fifteen years I've had people call me "Doc." Most of them were friends and patients who paid their bills and often complained that I didn't charge enough. On the other hand, some people have called the vet "Doctor" and called me "Mister." Brother, when someone calls me "Mister," it really burns me up—and I find they have called me because they could not get the osteopath.

The great majority of my loyal and pay patients call me "Doc." I've yet to practice, and this is my third location, where they did not refer to the vet as "Doctor" and the M.D. as "Doc" or "Mister." Give me "Doc" every time!

PAUL LOWELL, M.D.
Holden, Mo.

Placebos Almost Irreplaceable

TO THE EDITORS: With reference to the recent letter titled "Placebo for Witch Doctors" in a recent issue of *Modern Medicine* (Mar. 15, 1950, p. 18):

The writer of that item contends that the use of a placebo belongs "to the medieval or witch doctor school of medicine." It is difficult to believe that the writer is serious and, quite probably, he is writing

with tongue in cheek. But some of your readers may take the item uncritically at face value, and in view of the very wide circulation of *Modern Medicine* some response should be made thereto.

Placebos serve a special and almost irreplaceable purpose in experimental clinical work and in the initial determination of the value of any drug. For example, the writer asks, perhaps rhetorically, if it would not be more rational to prescribe tablets of thiamin hydrochloride instead of a placebo. But the original clinical work on thiamin, on which basis it is prescribed today, was done by the use of placebos whereby one group of patients received thiamin and another group the placebo.

Empiric investigations of drugs and evaluation without the use of controls are the hallmark of a bygone era. Placebos are an important phase of controlled investigations; the modern foundation of therapeutics is based upon controlled investigations in which the use of placebos has played an important part.

It is possible of course that the writer condemned the use of placebos as a method of treatment in office practice, suggesting instead the use of thiamin hydrochloride or other vitamins. That is a matter of his own personal election, but the comparison is difficult to understand. If vitamin therapy is indicated, the question of a placebo does not enter. If for psychotherapeutic reasons a placebo is indicated, it fully serves its purpose, a purpose that is met just as well or perhaps better by raspberry syrup than by elixir thiamin hydrochloride. Is one to divine that thiamin hydrochloride fulfills *any* of the purposes for which a

(Continued on page 26)

Oral therapy for allergic rhinitis

Cream for dermatosis

Side effects "much fewer and much less severe"[1]

In a recent clinical study comparing antihistaminics at various dosage levels, Neohetramine proved to be highly effective therapeutically and exceptionally well-tolerated.[1]

NEOHETRAMINE®

HYDROCHLORIDE

is an effective antihistaminic for the relief of catarrhal symptoms and dermatosis due to allergy.

[1]Schwartz,E.: Ann. Allergy7:770(Nov.-Dec.)1949

*From "Diseases of the Skin," by O. Ormsby and H. Montgomery, courtesy of Lea & Febiger, Phila., Pa., 1945.

TABLETS
25 mg. Packet of 12, vial of 25, bottles of 100 and 1000
50 mg. Bottles of 100 and 1000
100 mg. Bottles of 100 and 1000

SYRUP
6.25 mg. per cc.
Pints and gallons

CREAM
Contains 2% Neohetramine
Tubes of 1 oz.

Neohetramine is the registered trademark of the Nepera Chemical Co., Inc., for its brand of thonzylamine—N, N-dimethyl-N' p-methoxybenzyl-N' (2-pyrimidyl) ethylenediamine.

Wyeth Incorporated • Philadelphia 3, Pa. *Wyeth*®

In Acute and Chronic Alcoholism

SYNDROX

ACCEPTED
COUNCIL ON PHARMACY AND CHEMISTRY
AMERICAN MEDICAL ASSOCIATION

McNEIL

Favorable results have been obtained with Syndrox Hydrochloride as an adjunct in the treatment of acute and chronic alcoholism.

The stimulating effect of Syndrox Hydrochloride on higher cerebral centers—its action in counteracting abnormal sleepiness and feeling of fatigue, producing euphoria, suppressing the appetite—has made this sympathomimetic amine a valuable agent also in such conditions as:

OBESITY

—allays the sensation of hunger and depresses the motility of the gastrointestinal tract.

MILD DEPRESSIVE STATES

—elevates the mood, imparts a sense of energy and vigilance.

DROWSINESS, NARCOLEPSY

—counteracts abnormal sleepiness and feeling of weariness.

HYPOTENSION

—increases blood pressure.

ADVANTAGES OF SYNDROX:

- Rapid onset (10-20 minutes)
- Long duration of effect (6-12 hours, depending on dose)
- Negligible side effects, with proper dosage
- Small dosage

Supplied in 5 mg. tablets (scored, green), in bottles of 100 and 1000.

Also available in a pleasant-tasting Elixir (colored amber); each 30 cc. (1 fl. oz.) containing 20 mg. Pints and Gallons.

*Trade-mark of McNeil Laboratories, Inc.

LABORATORIES, INC.

placebo was intended to be employed? Incidentally, one may ask, what purpose, except the psychologic, is intended to be served by the use of placebos in office practice?

One wishes to make the point that drugs have their pharmacologic effect on which is based their therapeutic application. In the case of placebos, the therapeutic effect obtained is not based upon a pharmacologic rationale but upon a psychotherapeutic rationale. If the latter is the basis for administration, one fails to see the preeminence of vitamins or other such "harmless" drugs, over placebos of, say, lactose tablets or raspberry-flavored syrup.

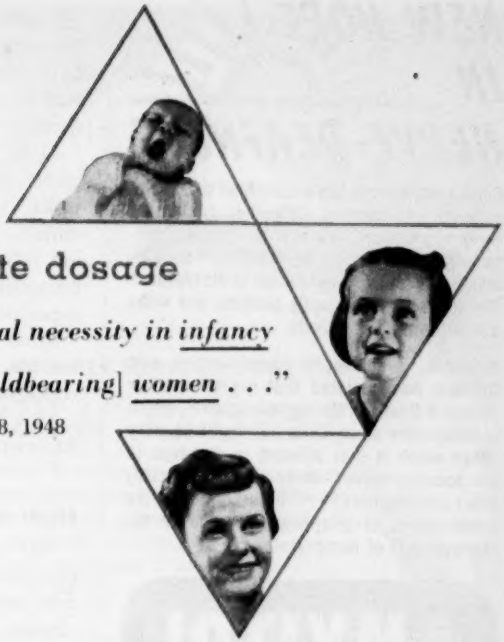
It may be well to call to mind that the use of thiamin hydrochloride or yeast tablets or similar "harmless" drugs as placebos is based upon a false concept, for in a scientifically sound clinical investigation such preparations do not give the proper basis for evaluation of the effect of a drug.

ERWIN DI CYAN, PH.D.
New York City

Qualifications of Chiropodists

TO THE EDITORS: Lack of knowledge of the qualifications of the present-day chiropodist is shown when Dr. Joseph E. Brown, in his article on practical foot problems, makes the statement, "Unfortunately most [people with painful feet] rely on self-treatment . . . or consult chiropodists" (*Modern Medicine*, Apr. 15, 1950, p. 84).

If Dr. Brown would visit the Ohio College of Chiropody in his city, he might ascertain something of the educational requirements, training, and scope of practice of the modern chiropodist.



Iron in adequate dosage

"is almost a physiological necessity in infancy and childhood and [childbearing] women . . ."

Sundaram, S.K.: Lancet. 1:568, 1948

and Feosol *is iron in its* most effective form

Feosol—both the Tablets and the highly palatable Elixir—contains adequate dosage of ferrous sulfate, grain for grain the most effective form of iron. Feosol is easily absorbed and readily tolerated. Feosol effects rapid hemoglobin regeneration and prompt reticulocyte response.

Smith, Kline & French Laboratories, Philadelphia

Feosol Tablets
Feosol Elixir

the standard forms of iron therapy

Licensed in forty-eight states, the chiropodist today is qualified to *treat* foot conditions of a local nature and to *recognize* those requiring systemic treatment by a physician.

Many of the country's leading hospitals employ chiropodists on their staffs, both in foot and diabetic clinics, and many of our patients are referred to us by physicians who recognize the special training of chiropodists.

Just as the dentist is qualified for his specialty, so are modern chiropodists qualified for theirs.

FRANK J. GASSER, D.S.C.
Morristown, N.J.

Fluids for Gastric Hemorrhage

TO THE EDITORS: Regarding the discussion on management of gastric hemorrhage by Drs. A. F. R. Andresen and John A. McLean (*Modern Medicine*, Apr. 15, 1950, p. 21), it is assumed that the hemorrhage occurs as a symptom in parapyloric ulcer.

It is surprising what good results are obtained by an emergency laparotomy, sewing up the ulcer to prevent further hemorrhaging, and, if the patient is too depleted, postponing the gastroentero-anastomosis until his general condition has improved. Parenteral glucose and some parenteral aminoids are given to put the ulcer area at rest until healing can be expected.

The essential factor is to keep up the fluid volume. The formed elements of the blood are soon replaced if the hematopoietic system is being stimulated to compensate for the loss of blood. Therefore, blood transfusion can be safely replaced by plain Ringer's or dextrose solution.

(Continued on page 32)

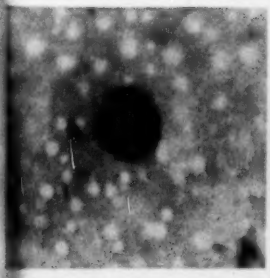

NOW, BRIGHTER PROSPECTS FOR THE
CARDIAC PATIENT
New hope for the cardiac patient's future comes from today's more efficient management. Theorate 'Robins' helps tide over the coronary patient, by its potent coronary vasodilation, nontoxic diuresis and effective myocardial stimulation. It may be used over long periods without fear of gastric irritation or oversedation. Theorate 'Robins' is recommended for coronary disease, angina pectoris, congestive heart failure, essential hypertension, edema and other cardiovascular pathologies. • Each enteric-coated tablet contains: 100% alkaloidal Theobromine 5 gr., Phenobarbital ¼ gr.
A. H. ROBINS COMPANY, INC. • Richmond 20, Va.
Ethical Pharmaceuticals of Merit since 1878
THEORATE
Robins
R
Q
P
COR VITALIS
FACULTATIS

"A germ's eye-view" of

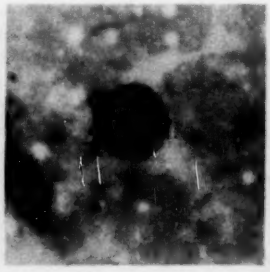
Bactine

in action

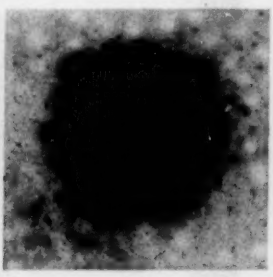
Electron photomicrographs (x 32,000) strikingly demonstrate *Bactine's* unusual "explosive" or disintegrating action on bacteria. Minute globules of *Bactine* coat the organism and readily break through its protective membrane. Rupture of the germ's cell wall is rapidly followed by complete disintegration.



First stage
The small, light-colored globules are *Bactine*. Note their accumulation around the Staphylococcus.



Second stage
Disintegration is beginning at the periphery of the bacterial body.



Third stage
Beginning of the end. Complete disintegration of the outer portion of the Staphylococcus. Contents of the bacterial body are being released.

achievement in antisepsis

Bactine

TRADE MARK

new, powerful – yet gentle – antiseptic, bactericide, cleanser-deodorant, fungicide

These distinctive features make *Bactine* invaluable for office, hospital, personal and home use –

Bactine is a clear, colorless, non-staining liquid with a clean, fresh odor.

Bactine makes skin, clothing, textiles, glass, metal, plastic and enamel surfaces surgically clean.

Bactine gives prolonged protection to hands and other disinfected surfaces. This keeps them antibacterial for several hours after application despite re-contamination.

The end
Disintegration and dispersal.

Bactine is effective against most pathogenic organisms and against at least fourteen common types of pathogenic fungi.

Bactine is gentle to the skin and practically painless on abrasions and cuts.

Bactine has mildly cooling and local anesthetic action. It is unusually effective for relief of itching due to mosquito and other insect bites. It relieves the discomfort of sunburn, prickly heat, cold sores, minor burns and poison ivy.

Bactine is a true deodorant-cleanser. It does not mask but eliminates odors and destroys bacteria responsible for them.

Bactine is now available from your usual source of supply. A comprehensive brochure describing the research background, the unique properties and the many uses of *Bactine* will be sent you on request.

MILES LABORATORIES, INC · ELKHART, INDIANA

This eliminates a possible danger of fresh donor blood, foreign protein reactions, incorrect blood matching, and so forth.

In an emergency, one can start immediately, really immediately, with hypodermoclysis and, later on, continue with intravenous infusion, going not too fast, as this might increase the blood pressure and thus favor another hemorrhage.

L. KERSCHBAUMER, M.D.

Peoria

► TO THE EDITORS: Dr. A. F. R. Andresen's method of treatment of bleeding peptic ulcer may well be called the laissez-faire method, since the less one does for the patient the better he feels the patient fares (*Modern Medicine*, Oct. 15, 1949, p. 72 and Apr. 15, 1950, p. 21). It is the oldest method known of treating these patients and perhaps the most widely practiced at this time, since blood transfusions are not widely available, particularly in significant amounts.

However, in all fairness to the majority of medical centers, which attempt volume replacement of blood lost, it would be most interesting to have Dr. Andresen publish his statistics. I know that they cannot better the results obtained in a number of institutions where adequate blood replacement is carried out.

ALFRED N. SMITH, M.D.

Fayetteville, Ark.

Would Choose MM

TO THE EDITORS: I enjoy and profit from your journal so much. If I were limited to one periodical, it would be *Modern Medicine*.

H. W. HERBERT, M.D.

Florence, S. C.

CERTAINLY GRANDPA DIDN'T NEED VITAMINS,,BUT...

In Grandpa's day fertile soil produced foods rich in vitamins and minerals. Today—soil depleted of nutrient content through the years, produce foods grossly lacking in these essential nutrients.

Grandpa consumed his foods fresh and ripe. Today much of the mineral and vitamin content of food is lost through early harvesting and lengthy storage.

Today foods are drained of minerals and vitamins by soil depletion, high refining and processing methods. As a protective measure against this loss of minerals and vitamins in the modern diet, specify VITERRA — a new concept of nutritional adequacy which provides 12 MINERALS and important trace elements together with 9 VITAMINS—ALL IN ONE CAPSULE.

● *12 Minerals and 9 Vitamins all in one capsule*

MINERALS	
Cobalt (*Cobaltous Sulf.*)	0.1 mg.
Copper (*Cupric Sulfate*)	1 mg.
Boron (*Sodium Metaborate*)	0.2 mg.
Iron (*Ferrous Sulfate*)	10 mg.
Iodine (*Potassium Iodide*)	0.15 mg.
Calcium (*DiCalcium Phosphate*)	213 mg.
Manganese (*Manganous Sulf.*)	1 mg.
Magnesium (*Magnesium Sulf.*)	6 mg.
Molybdenum (*Sodium Molybdate*)	0.2 mg.
Phosphorus (*DiCalcium Phosphate*)	165 mg.
Potassium (*Potassium Sulf.*)	5 mg.
Zinc (*Zinc Sulfate*)	1.2 mg.

VITAMINS	
Vitamin A (*Refined Fish Liver Oil*)	5,000 USP Units
Vitamin D (*Irradiated Ergosterol*)	500 USP Units
Vitamin B_1 (*Thiamine Hydrochloride*)	3 mg.
Vitamin B_2 (*Riboflavin*)	3 mg.
Vitamin B_6 (*Pyridoxine Hydrochloride*)	0.5 mg.
Niacinamide	25 mg.
Vitamin C (*Ascorbic Acid*)	50 mg.
Calcium Pantothenate (*Dextro*)	5 mg.
Mixed Tocopherols Type IV	5 mg.

Viterra

J. B. ROERIG AND COMPANY
536 LAKE SHORE DRIVE • CHICAGO 11, ILLINOIS

Questions & Answers

All questions received will be answered by letter directed to the petitioner; questions chosen for publication will appear with the physician's name deleted. Address all inquiries to the Editorial Department, MODERN MEDICINE, *84 South Tenth Street, Minneapolis 3, Minnesota.*

QUESTION: Can the following Carnoy's sclerosing solution be used for the treatment of small indirect hernias and internal hemorrhoids?

Absolute alcohol	6 cc.
Chloroform	3 cc.
Glacial acetic acid	1 cc.
Ferric chloride	1 gm.

Would the addition of procaine hydrochloride be incompatible?

M.D., Rhode Island

ANSWER: *By Consultant in Pharmacology.* I would not use this material as a sclerosing solution for small hernias and internal hemorrhoids; the best results are obtained by agents which do the least damage to surrounding tissue. For this purpose invert sugar solution is generally used and is most satisfactory. A preparation is available in 10-cc. ampules which contains:

Invert sugar	30%
Sodium chloride	10%
Benzyl carbinol	1%

This preparation would be far more satisfactory than mixing the various ingredients and adding procaine hydrochloride.

QUESTION: What is the most effective treatment for relief of whooping cough symptoms?

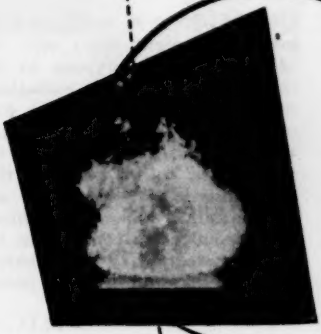
M.D., South Carolina

ANSWER: *By Consultant in Pediatrics.* Symptoms of whooping cough respond best to open air treatment rather than to closed rooms with added humidity. Expectorant cough syrups with codeine are useful in control of spasm. In infants, human hyperimmune serum is effective in controlling the symptoms and reducing paroxysms. Aureomycin or Chloromycetin may also be of some benefit.

QUESTION: For the past six years I have been very allergic to tobacco smoke and, to a lesser extent, to smoke or combustion emanations from other sources. Cigar and pipe smoke cause the severest reactions. Reaction consists mainly of an anginal type of chest pain and may progess to nausea and vomiting. I am taking dust and tobacco smoke desensitization treatments and use special pillows, bedding protection, and so forth. What are the chances of eventual anatomic change?

M.D., Vermont

ANSWER: *By Consultant in Allergy.* Injections are sometimes helpful in this type of allergy, but in most cases they are useless and in some may be harmful, actually continuing or even augmenting the reaction. If thorough dust sealing of the home and avoidance of tobacco smoke do not entirely relieve the condition, sensitivity to foods is possible. This may be confirmed by the use of the pulse-dietary diagnosis. The chest pain, like migraine, is probably



Every physician should see this!

Drop a Syntrogel tablet in water. In a matter of seconds it will "fluff up" to several times its size—proof of instant disintegration—tremendous increase in adsorptive surface. This is why Syntrogel relieves "heartburn" and hyperacidity so quickly.

HOFFMANN-LA ROCHE INC • NUTLEY 10 • N. J.

Syntrogel®

Each Syntrogel tablet contains aluminum hydroxide, calcium carbonate, magnesium peroxide and Syntropan® 'Roche.'

'Roche'

caused by impounded allergic edema under pressure. After severe attacks of this type polyuria often occurs. Such episodes of allergic edema leave no permanent anatomic change and are completely reversible.

QUESTION: A refrigeration service man, forty-eight years old, complains of constant aching pain in the intrascapular region with radiation to the neck and both arms. The patient attributes the symptoms to the use of Freon 12 in refrigeration work; he says it is a known fact that this agent, when used in the presence of an exposed flame, enters the blood stream and produces discomfort in the intrascapular region. Is this theory a probable explanation of the intrascapular pain?

M.D., Montana

ANSWER: *By Consultant in Toxicology.* Freon 12, like other halogenated hydrocarbons, could be broken down by an intense flame to give halogen acids which, if inhaled in sufficient quantity, would be irritating to the respiratory tract, but I doubt whether other discomfort from the irritating gases would be localized.

QUESTION: What effect does change to higher altitude have on convalescent bulbar poliomyelitis patients? A seventeen-year-old girl who is almost completely paralyzed is now in a portable lung one-third of the time. Her family wishes to move from Kansas to Colorado, an increase of over 3,000 ft. in elevation. Should the patient be allowed to move?

M.D., Kansas

ANSWER: *By Consultant in Neurology.* The girl certainly should not be moved to Colorado. The moving of any bulbar poliomyelitis patient to a higher altitude entails risk of decreasing oxygenation to the involved brain stem and consequent complications.

A UNIQUE ANALGESIC BANDAGE
PROVIDING CONTINUOUS LOCAL PAIN RELIEF

plus

POLYESTOL

A highly elastic, transparent plastic bandage which gives off 45 to 50 Gm. of methyl salicylate for transcutaneous absorption at a constant rate when in use. The bandage may be applied for a total of sixty hours (never more than ten hours at a time). It can be stored between applications without danger of deterioration.

CHECK THESE OUTSTANDING ADVANTAGES ● Local pain relief is rapid and sustained ● Continuous absorption of methyl salicylate and conversion to salicylic acid in body contribute to systemic salicylate therapy ● Application is simple, convenient, and clean . . . does not soil clothing ● Bandage provides immobilization or support where required ● Avoids gastric upset associated with oral salicylate therapy . . . does not cause salicylism.

HELPFUL IN ● Rheumatoid ailments and acute rheumatic fever, fibrositis, lumbago, gout, myalgia, neuralgia, muscle stiffness, sprains, strains, etc.; valuable adjunct in cases requiring oral or parenteral salicylate therapy.

AVAILABLE through surgical supply dealers and prescription pharmacies. Complete information and sample for examination on request.

DUNCAN C. McLINTOCK CO., INC.
591 MAIN ST., HACKENSACK, NEW JERSEY

Forensic Medicine

COMPILED BY ARTHUR L. H. STREET, LL.B.

PROBLEM: In a prosecution for abortion and manslaughter, did the trial judge improperly prejudice accused by permitting to be exhibited before the jury mangled parts of a fetus and parts of the aborted woman's organs?

COURT'S ANSWER: No.

The decision was made in New York (New York Court of Appeals, 89 N. E. 2d 710).

PROBLEM: Traditionally, it is abhorrent to execute a criminal who becomes insane after conviction. A Georgia statute provides that, when a condemned criminal seems to have become insane, the governor "may, within his discretion, have said person examined by such expert physicians as the Governor may choose." If, after the physicians report their findings, the governor determines that the person has become insane, he is empowered to commit the person to a state hospital until restoration of his sanity shall be legally declared. A condemned murderer was so examined and found to be sane. Was he entitled to release in a habeas corpus proceeding on the ground that his constitutional rights were violated because there was no statutory provision for his being represented at the inquisition conducted by the physicians to determine his sanity?

COURT'S ANSWER: No.

So decided the U.S. Supreme Court February 20, 1950, Mr. Justice Frankfurter dissenting.

The Court found that the postponement of execution because of insanity involved much the same discretion as is given a governor or a board to pardon a condemned man. Judge Frankfurter unsuccessfully argued with his associates that the Constitution restricts a state's power to take the life of an insane man. The majority argued that the governor and his appointee physicians may safely be trusted to hear those representing the condemned man on the question of his sanity. Judge Frankfurter argued that, despite all the good faith that governors and their appointee physicians may use, a condemned man is entitled to a *trial* of the fact of his sanity, in which he is represented, particularly "because of the treacherous uncertainties in the present state of psychiatric knowledge" (70 Sup. Ct. 457).

PROBLEM: In a prosecution for drunken driving, were the accused's constitutional rights violated by his conviction on evidence as to the alcoholic content of his urine, as shown by a specimen he voluntarily gave without being warned that the urinalysis might be used against him?

COURT'S ANSWER: No.

An expert testified that the analysis showed 0.28% alcohol, that 0.18% would show intoxication, and that, in his opinion, accused was intoxicated and an unsafe driver.

(Continued on page 42)

Rapid, sustained relief follows topical application of CALADRYL—the soothing new calamine-type antipruritic lotion containing BENADRYL®

CALADRYL

TRADE MARK

effective: CALADRYL effectively relieves sunburn and itching. Benadryl hydrochloride (1%), calamine, camphor, glycerin and other ingredients are blended in a soothing lotion for effective antihistaminic and antipruritic action.

pleasant: CALADRYL is pleasant to use. Faintly perfumed, its light flesh color is cosmetically inconspicuous. It does not rub off but washes off easily.

versatile: CALADRYL has many uses. It soothes sunburn's itching and burning. Prickly heat, diaper and cosmetic rash are readily relieved as is the itch associated with hives, insect bites, poison oak, poison ivy, measles, chicken pox, contact dermatitis, and minor skin affections.

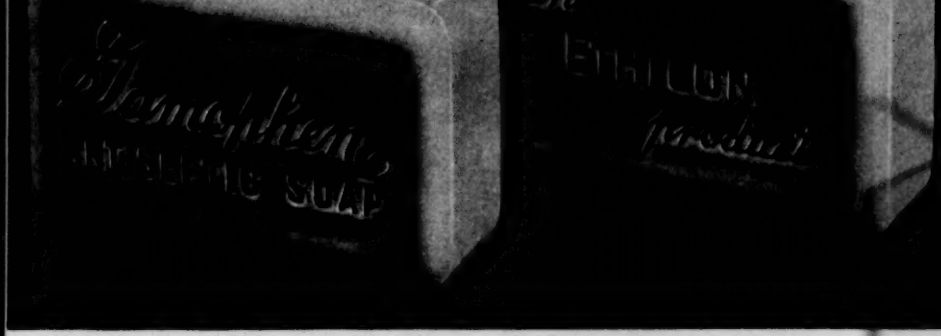
PARKE, DAVIS & COMPANY

MEDICAMENTA VERA

Governed maintenance

Of course, Doctor, maintenance is

The Ohio Court of Appeals in Columbus noted there was no proof of "compulsion or deceit" in taking the specimen.



AND HOSPITAL PERSONNEL

Emollient, Rich-Lathering, Fast-Acting Continuously-Effective, Economical

cus and E. coli, and 10% greater against Cl. welchii, than 3½% tincture iodine.

When used routinely for all cleansing occasions in hospital, office and home, Gamophen establishes a protective antibacterial film which exerts a continuous action. The marked degree of suppression achieved is maintained as long as this soap is used regularly and for several days after its use is stopped. The use of alcohol or other solvent rinses is contraindicated.

Bactericidal in 3-minute Scrub

Gamophen Soap is alkaline in solution, with a pH of 8.5 to 9. It is bactericidal in a 3-minute scrub in the concentrations used in normal scrub conditions. It quickly produces a thick, rich lather, even in hard and cold water. Every lot produced is tested for potency.

WHERE TO USE GAMOPHEN

In office and home. In the hospital wherever soap is used—by staff personnel or patients. For pre-operative antisepsis of skin. Industrial clinics and first aid stations.

In other tests, hexachlorophene in Gamophen was found to be more effective than it was in other vehicles, such as certain liquids having an acid pH, in which it is bacteriostatic but not bactericidal. Liquid solutions having an acid pH lower the effectiveness of hexachlorophene.

Gamophen is supplied in 4½-oz. bars for home and office; in 2-oz. bars for hospital personnel and patients' use.

SOAP

FREE—FULL-SIZE BAR FOR TRIAL

(May be clipped and pasted to Penny Post Card)

ETHICON, New Brunswick, N. J. DEPT. MM-650

Please send Gamophen Soap and Literature.

Dr._____

Street_____

City_____ State_____

Limited to Profession in U.S.A.

Ease Your Work...Please Your Patients

The Ohio Court of Appeals in Columbus noted there was no proof of "compulsion or deceit" in taking the specimen.

As to the expert testimony, the court intimated that, had objection been made at the trial to the witness stating his conclusion that the urinalysis showed that accused was an "unsafe driver," it should have been stricken. But, in line with decisions in other states, the testimony as to the alcoholic content of the specimen and as to the percentage that ordinarily necessarily shows intoxication was considered sufficient to establish intoxication (89 N. E. 2d 703).

PROBLEM: A health and accident policy provided indemnity up to five years, but only one month's indemnity for "hernia." Did an esophageal hiatus diaphragmatic hernia constitute hernia?

COURT'S ANSWER: No.

The California District Court of Appeal, Second District, applied the general rule of law that ambiguity in policy provisions is to be resolved in favor of the insured. The insurer is bound to word exceptions and restrictions so clearly that they are plain to the ordinary mind. Unless a word is obviously used in a technical sense, it will be interpreted according to popular understanding.

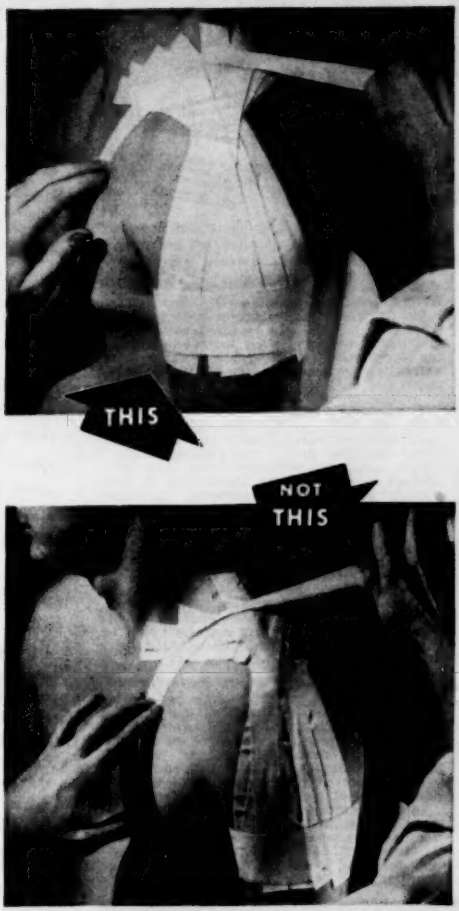
The court noted that the ratio of inguinal hernias to esophageal hiatus diaphragmatic hernias is about 1,000 to 1. Unusual surgery is required for the latter and surgeons qualified to perform the necessary operation are few. That type of hernia has been diagnosed only since 1920.

Significance was attached to the

Ease Your Work...Please Your Patients

with Curity
REG. U.S. PAT. OFF.

Adhesive



Here's why you and your patients will prefer CURITY Adhesive.

Its special cloth backing gives it more "body"—makes it easier to handle, helps it go on more smoothly and lie flat (see actual photo). What's more, that same special cloth reduces stretching, which means less frequent retaping . . . less tape used.

And over ten years of experimentation—over 15,000 skin tests—have proved CURITY Adhesive less irritating to the skin. It sticks instantly, stays on, gives more patient comfort.

See for yourself what a pleasure it is—for you *and* your patient—to use CURITY Adhesive.

A product of

BAUER & BLACK

Division of The Kendall Company, Chicago 16

Curity
REG. U.S. PAT. OFF.

RESEARCH TO IMPROVE TECHNIC . . . TO REDUCE COST

surgical fee schedule in the policy allowing $50 for hernia, implying that the term applied to inguinal hernia only.

The California court cited these precedents: In a Washington case, the word "infection," as used in a policy, was read according to popular understanding and not as including pneumonia, in the medical sense (100 Pac. 2d 1036). In an Illinois case, a policy excluded "arthritis" from maladies for which special disability allowance should be made, and the court held that postoperative arthritis was not excluded (53 N.E. 2d 476). In a Pennsylvania case, a workmen's compensation provision for hernia was held to apply to ordinary hernias or ruptures and not to extend to hernia in the surgical sense as including the protrusion of any soft interior organ from its normal cavity, as a hernia of the brain, lung, or eye (100 Pa. Super. 324).

PROBLEM: A householder returning home in Washington, D.C., found a health inspector waiting at her door to inspect the premises on a complaint that unsanitary conditions existed there. The inspector had no search warrant. She refused to unlock the door for him. Did she thereby render herself liable under an ordinance forbidding interference with municipal officers in the performance of their duties?

COURT'S ANSWER: No.

So decided the highest court of the land by a 6 to 2 vote, February 20, 1950.

The householder was convicted in the District of Columbia Municipal Court, but the conviction was set aside by the U.S. Court of Appeals

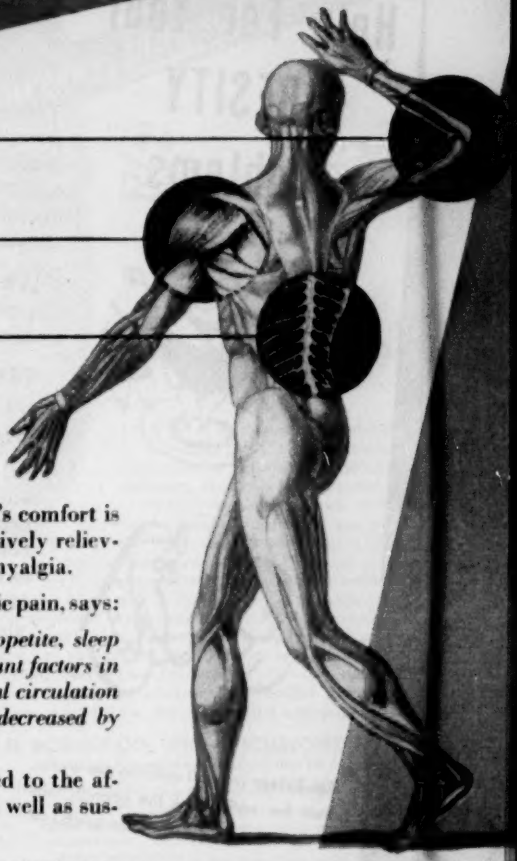
(Continued on page 48)

Spot analgesic action

. . . in arthritic,

muscular

or neural pain



Consideration for the patient's comfort is not the only reason for effectively relieving arthralgia, neuralgia or myalgia.

Comroe,* in discussing arthritic pain, says:

"Pain prevents proper rest, appetite, sleep and exercise, which are important factors in the recovery process. Peripheral circulation and muscle function may be decreased by persistent pain . . . "

ARTHRALGEN, easily applied to the affected area, provides rapid as well as sustained relief from local pain.

ARTHRALGEN combines the potent vasodilator methacholine chloride, the rubefacients—thymol and menthol—and the analgesic, methyl salicylate in a unique ointment base for rapid penetration and *spot action.*

ARTHRALGEN is valuable in the alleviation of the muscle, joint and nerve pain of arthritis, sprains, lumbago, synovitis, bursitis, neuritis and myositis.

Available in 1-oz. collapsible tubes and half-pound jars.

*Comroe, B. I.: Arthritis and Allied Conditions, Philadelphia, Lea and Febiger, 1944, p. 187.

Arthralgen®

ARTHRALGESIC UNGUENT

Whittier LABORATORIES

Division Nutrition Research Laboratories
Chicago 30, Illinois

Help For Your OBESITY Problems

You can save *many hours of consultation time*—help overweights reduce safely and maintain normal weight after reduction—with these free *booklets for patients:*

"LOW-CALORIE DIETS"—1200 calories for women; 1800 for men.

"THROUGH THE LOOKING GLASS"—1500-calorie diet for teenage girls.

All diets are carefully balanced to supply essential nutrients. Psychological factors are considered. *Correct* eating is encouraged. Thus the lasting benefits of "stay slim" habits are acquired.

Ry-Krisp: only 23 calories per wafer, bulk for satiety, all the protein, minerals and vitamins of whole-grain rye.

USE COUPON FOR FREE BOOKLETS

RALSTON PURINA COMPANY, Nutrition Service
LM-1 Checkerboard Square, St. Louis 2, Missouri

Please send (indicate quantity):

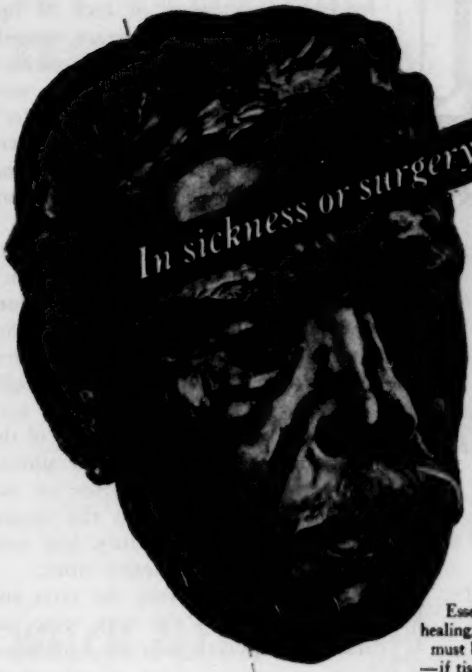
_____C3049 "Low-Calorie Diets"—for adults—Imprinted? Yes_____ No_____

_____C966 "Through the Looking Glass"—for teenage girls.

Name_____ M.D.

Street_____

City_____ Zone_____ State_____



"Saturation Dosage"

of vitamins b *and* c

Depletion of the critical water-soluble B complex and C vitamins occurs so commonly in the presence of physical pathology, as to make a presumption of nutritive impairment[2] almost axiomatic. Essential to normal cell metabolism and wound healing, these poorly-stored, readily-diffusible factors must be replenished — usually by *massive dosage* — if tissue rehabilitation[3] and return to health[4] are to be expedited. • Allbee with C 'Robins' provides this all-important "saturation dosage" in convenient capsule form. It incorporates the important B factors in 2 to 15 times daily requirements, plus 250 mg. of vitamin C — *the highest strength of ascorbic acid available today in a multi-vitamin capsule.* • Its prescription represents a sound contribution toward decisive recovery from disease, or toward pre- and post-operative nutritional support.[1]

A. H. ROBINS CO., INC. · RICHMOND 20, VA.

Ethical Pharmaceuticals of Merit since 1878

FORMULA: *Each Allbee with C capsule contains:*

Thiamine hydrochloride (B_1)	15 mg.
Riboflavin (B_2)	10 mg.
Nicotinamide	50 mg.
Calcium pantothenate	10 mg.
Ascorbic acid (C)	250 mg.

REFERENCES: 1. Collier, F. A. and DeWeese, M. S.: Preoperative and Postoperative Care, J.A.M.A., 141:641, 1949. 2. Jolliffe, N. and Smith, J. J.: Med. Clin. North America, 27:847, 1943. 3. Kruse, H. D.: Proc. Conf. Convalescent Care, New York Acad. Med., 1940. 4. Spies, T. D.: Med. Clin. North America, 27:773, 1943.

allbee® WITH C

Robins

for the District, on the ground that, since no emergency or lack of opportunity to secure a warrant existed, the Constitution forbade entrance upon the premises without a warrant and without the householder's consent. The complaint that there was an accumulation of filth upon the premises was not considered an emergency (178 Fed. 2d 12).

The District of Columbia appealed to the U. S. Supreme Court, which upheld dismissal of the prosecution, but for a different reason. The Supreme Court ruled that, regardless of whether the inspector had a right to enter the premises without consent or a warrant, the mere act of the householder in refusing to unlock the door did not constitute an unlawful interference with the inspector's performance of duty. She used no force and threatened none.

The court said that the facts and law involved in the case were too narrow to permit a broad determination as to the right of officers to make "all these varied types of investigations, inspections and searches" without consent or a warrant. So it was deemed both unwise and unnecessary to determine in this case whether the health inspector could have lawfully forced entrance to the premises.

Messrs. Justices Burton and Reed dissented, being of the opinion that accused did unlawfully interfere with the inspector's performance of duty and that those duties "were of such a reasonable, general, routine, accepted and important character, in the protection of the public health and safety" that no search warrant was needed (70 Sup. Ct. 468).

¶ Thus it will be seen that the Supreme Court leaves undecided the question of when a search warrant is needed.—A.L.H.S.

new DURABILITY new CLEANLINESS
new COMPACTNESS new BEAUTY

WELCH ALLYN *sandura* INSTRUMENT CASE

Unanimously, doctors who have tested the "Sandura" case for more than a year acclaim it to be a vast improvement over old style cases.

This compact case is made of reinforced material to withstand far more stress and wear than any case will receive in normal use. It has amazing resistance to scratches and abrasion, and retains its like-new appearance for years.

The soft rubber lining protects the instrument against shock damage. Like the entire case, it can be washed with soap and water and sterilized by wiping with alcohol, an impossibility with old style plush-lined cases.

The "Sandura" case takes up less room in your bag and slips easily into your coat pocket.

All Welch Allyn otoscope sets or otoscope-ophthalmoscope sets with large handles are now available in this new "Sandura" case. Cases may also be purchased separately. Ask your Welch Allyn dealer to show it to you.

WELCH ALLYN, INC. Auburn, New York
ELECTRICALLY ILLUMINATED DIAGNOSTIC INSTRUMENTS

A Major Advance in Peptic Ulcer Therapy:

Banthine*

BROMIDE

Brand of Methantheline Bromide

AN ORIGINAL RESEARCH PRODUCT PROVIDING A NEW THERAPEUTIC APPROACH

ENCOURAGING results with Banthine in a group of refractory peptic ulcer patients were reported by Longino, Grimson, Chittum and Metcalf[1] and later in an enlarged series of patients by Grimson and Lyons[2]. Their observations interested other investigators[3-5] who have obtained equally promising results with this new drug.

These early observers[1,2] noticed that symptoms are sometimes relieved as soon as fifteen minutes following the institution of therapy, and in patients with long-standing, intractable pain discomfort becomes mild and intermittent or disappears. Their conclusions regarding healing of the ulcer are based on roentgenographic evidence.

Thorough pharmacologic investigations indicate that Banthine is a potent but safe drug in therapeutic doses. In these studies no abnormality of the blood or urine or other evidence of toxicity was observed.

BANTHĪNE: THE DRUG

Chemically, Banthine is β-diethylaminoethyl xanthene-9-carboxylate methobromide. Its generic name is methantheline bromide. It should be noted that the xanthene group bears no relation to the more familiar xanthine group of drugs.

A True Anticholinergic

Banthine may be described as a true anticholinergic drug. In therapeutic doses it controls autonomic stimuli which result in the vagotonia characteristic of the ulcer diathesis. This action is effected at

*Trademark of G. D. Searle & Co.

the ganglions of both the sympathetic and parasympathetic systems and, in addition, at the postganglionic nerve endings of the parasympathetic system alone. Thus, the resulting therapeutic action is that of control of excessive parasympathetic stimuli effecting a consistent reduction of gastric hypermotility and, in most patients, a reduction in the hyperacidity which is commonly associated with peptic ulcer.

ADMINISTRATION

Because of the prominence of emotional or situational stresses in the ulcer patient and because these stresses vary in each patient, it is necessary to adjust Banthine dosage to meet individual requirements. Initial dosage may be 50 or 100 mg. (one or two tablets) every six hours, day and night, with subsequent adjustment to the patient's needs and tolerance. In addition, the usual adjunctive measures of diet, rest and relaxation should be prescribed for at least the first few weeks of treatment.

It is important that the usual high night secretions be controlled. To this end it is recommended that the night dose be taken six hours prior to the usual time of arising. Further, after the ulcer is healed, it is important that the patient be placed on a maintenance dosage schedule if he is to have a reasonable assurance of nonrecurrence. The maintenance dosage may well be approximately one-half the therapeutic dose and no evidence of chronic toxicity has been observed in maintenance dosage although this experience covers only a period of sixteen months.

Patients may report dryness of the mouth, mild degrees of blurring of vision, slight difficulty of urination or gastric fulness; these symptoms usually decrease or disappear on continued medication but if they are severe they may require dosage adjustment. Untoward reactions with Banthine therapy have not been encountered.

More complete suggestions for Banthine administration are available to the medical profession in Searle Reference Manual No. 40.

Banthine is a product of Searle research. G. D. Searle & Co., Chicago 80, Illinois.

REFERENCES

1. Longino, F. H.; Grimson, K. S.; Chittum, J. R., and Metcalf, B. H.: An Orally Effective Quaternary Amine, Banthine, Capable of Reducing Gastric Motility and Secretions, Gastroenterology 14:301 (Feb.) 1950.
2. Grimson, K. S., and Lyons, C. K.: Scientific Exhibit at the American Academy of General Practice, St. Louis, Feb. 20-23, 1950.
3. Grollman, A.: Pharmacology and Therapeutics, ed. 14, Philadelphia, Lea & Febiger, in press.
4. Dragstedt, L. R.: Personal communication, March 23, 1950.
5. Collins, E. N.: Personal communication, March 28, 1950.

Now! TUBEX WYCILLIN 600 SUSPENSION

Wyeth

In a single-dose 1-cc. TUBEX— 600,000 units procaine penicillin G in aqueous suspension

- Ready for instant use
- Diluent already added
- No sterilizing required
- Economical—no waste of penicillin; the empty cartridge only is discarded.
- 600,000 units — the recommended daily dose in syphilis and severe acute infections.

SUPPLIED: Single-dose 600,000 unit Tubex, with sterile needle, through your local pharmacy.

Wyeth Incorporated • Philadelphia 3, Pa.

Special Article

Problems in Syphilis Diagnosis and Therapy

MORTIMER S. FALK, M.D.*
University of Pennsylvania, Philadelphia

Prepared for Modern Medicine

THE antibiotics, improved serologic tests, and quick therapy centers have helped to solve some age-old venereal disease problems. Nevertheless, some perplexing questions remain and others which are peculiar to the new treatment methods have arisen.

For example, seroresistance remains as much a problem as before rapid therapy. The diagnostic significance of umbilical cord Wassermanns, which are performed routinely in some hospitals after delivery, and of positive serologic reactions in infants is often raised. The patient with the so-called biologic false positive serologic reaction continues to be an enigma.

Some of the most common problems in modern treatment of syphilis are presented in the following discussion. They have been selected on the basis of consultations and inquiries frequently encountered in the Institute for the Study of Venereal Disease of the University of Pennsylvania and in private practice. Since all are more or less controversial subjects, the author does not contend that the solutions offered should be accepted with unanimity.

What is the present opinion on seroresistance?

One of the most frequently referred problems in our experience is the patient whose only sign is a persistently

* Institute for the Study of Venereal Disease and the Department of Dermatology and Syphilology, University of Pennsylvania School of Medicine.

positive serologic reaction, despite adequate, and even what would be considered many times adequate, treatment for syphilis. It is apparently still common belief that a positive serologic test for syphilis—Wassermann, Kahn, Kline, Mazzini, and so forth—indicates active syphilis.

Likewise, the degree of positiveness reported, +, ++, +++, or ++++, is thought to be a measure of the severity of the infection. It is unfortunate that this idea still prevails, for many patients spend months and years needlessly worrying about the number of pluses in their previous and ensuing blood tests.

In early syphilis, *adequate* treatment, whether with penicillin or the older arsenical–heavy metal regime, should result in a reversal to negative of the blood serologic test for syphilis. In syphilis of longer duration, ordinarily of two or more years, seronegativity is often not achieved despite repeated courses of treatment. Why is this?

Although the mechanism of the positive serologic test for syphilis is not yet completely explained, it is generally believed that positivity indicates the presence of an antibody called reagin in the patient's serum. This antibody is produced by the individual's immunologic mechanism in response to infection with the *Treponema pallidum* and may be compared in many respects to antibodies which are formed in other infectious diseases. The analogy to the positive Widal test in typhoid fever or after inoculation with typhoid vaccine is often used as an illustration.

In the patient with early syphilis, the infection has not had sufficient time to make a profound or indelible impression on his immunologic mechanism and so, with prompt adequate treatment and consequent destruction of all the spirochetes, seronegativity can be achieved.

In late syphilis, however, the infection has apparently made a more lasting, if not permanent, impression on the cells which produce the antibody reagin, and they are so altered chemically that they continue to produce the antibody despite the fact that the patient has received sufficient treatment to render him clinically cured.

Whether or not this is the entire explanation, clinical studies of large numbers of patients observed for long periods of time have proved fairly conclusively that there is no foun-

dation for the belief that a positive serologic test for syphilis is indicative of active infection in late syphilis. Several competent investigators have shown that patients with latent syphilis who have had adequate treatment fare as well when their serologic tests remain positive as when they reverse to negativity.

There is no point in continuing treatment just because the serologic test remains positive. If the patient has been completely evaluated, that is, has had a thorough physical examination with emphasis on the cardiovascular and nervous systems and a spinal fluid examination, all of which were negative, he should be given an adequate course of treatment and then placed under periodic observation.

The persistence of a positive serologic test is not sufficient cause for retreatment. There may be occasional exceptions to this rule, as when a patient who has had a low quantitative titer for a period of time shows a significant and persistent increase, but in the main little is to be gained by continuing to treat and retreat the late latent syphilitic patient on the basis of seroresistance alone.

Are seroresistance, relapse, and reinfection increasingly difficult to distinguish?

Another problem which is almost peculiar to rapid treatment, of which penicillin therapy is the prime example, has become more and more common in recent years. A specific case history is illustrative:

Mr. X, a thirty-two-year-old veteran, has a confirmed positive serologic test for syphilis. He has no skin or mucous membrane lesions of primary or secondary syphilis, and physical and spinal fluid examinations are completely negative. He states that he had a negative serologic test on induction in the Army in 1942. While overseas he had a discharge—gonorrheal—and was given a few injections of penicillin in 1945.

On separation from the Army in 1946 he had a positive serologic test, although no other signs or symptoms of syphilis, and was given a course of penicillin therapy over a period of about one week. Since then he has had no blood tests performed until the recent ones, and he denies symptoms suggestive of early infectious syphilis.

The problem in this, and numerous variations of the situation, is whether the patient represents a case of seroresistance or relapse or whether he was reinfected after his treatment in 1946.

Considerable evidence now indicates that reinfection is no longer the rare phenomenon it was considered to be in the arsenical–heavy metal era of syphilitic therapy. With intensive short courses of treatment, the patient may not have sufficient time to build up a relative immunity to reinfection. Penicillin in adequate dosage probably eliminates every vestige of *Treponema pallidum* from his system so completely and rapidly that, at the next exposure to the organism, he has no more resistance than a previously uninfected individual.

Thus, with the information at hand, we cannot classify the patient in the illustrative case as having seroresistant latent syphilis. It is entirely possible that he was cured of his original infection by the penicillin given at the time of separation from military service and was subsequently reinfected. It seems advisable in such instances to treat the patient as if he had untreated latent syphilis. Of course, the importance of periodic examinations, which the patient neglected before, should be emphasized to him.

What is the significance of a positive cord Wassermann?

The diagnostic significance of positive serologic tests for syphilis at parturition deserves some comment. Umbilical cord Wassermanns are routinely performed in some hospitals after delivery.

Is a positive cord serologic test sufficient indication for antisyphilitic treatment? We believe not. In many instances a positive cord test represents only a placental transfer or passage of maternal reagin and the infant is free of infection. Occasionally, also, the cord test is negative despite a congenitally infected infant. The cord Wassermann is at best only an additional aid in detecting cases of congenital syphilis and should not be used as a diagnostic method.

When is diagnosis of congenital syphilis justified?

What about the positive serologic test in the newborn infant? The significance depends to some extent upon

the particular circumstances. If the infant has signs and symptoms of congenital syphilis, immediate treatment is, of course, indicated. If the mother has untreated syphilis, it is probably wise to treat the infant, even though he has no signs other than a positive serologic test of significant titer.

These situations do not represent real problems, but a third set of circumstances does. To illustrate: A woman is found to have syphilis on prenatal examination and is treated with an acceptable course of penicillin; her posttreatment response is apparently favorable. Her serologic test for syphilis is still positive at the time of delivery—this is usual in such cases—and a serologic test performed on the newborn infant is positive in moderately high titer. Complete physical examination of the infant, including roentgenograms of the long bones, shows no evidence of active syphilitic infection.

Are we justified in making the diagnosis of congenital syphilis under these circumstances? We believe not. An infant born of a mother with a positive serologic test for syphilis often has positive blood, but this frequently represents only placental transfer of maternal reagin rather than syphilis in the infant.

Our procedure in cases of this sort is to defer treatment, if we are reasonably certain that the child can be carefully observed. We perform quantitative blood serologic tests and physical examinations at two-week intervals. If the titer of the tests falls gradually to negative, as it usually does, we have confirmed our thesis that the positive test represented a transfer of maternal reagin.

On the other hand, if the titer remains positive for as long as three months or if the infant develops signs and symptoms of syphilis, treatment is indicated. The latter outcome is much less common than the former, and for this reason we feel that the suggested program of observation is preferable to pinning a diagnosis of congenital syphilis on the infant.

Why are biologic false positive reactions possible?

The problem of the so-called biologic false positive test for syphilis still remains unsolved. Fewer patients than formerly are now referred specifically for the determination

of whether their positive or doubtful blood tests represent true syphilitic infection. The practitioner is apparently less reluctant to give a patient a course of penicillin than he was to start the more hazardous and longer arsenical–heavy metal therapy.

Nevertheless, one should hesitate to make a diagnosis of syphilis in a patient whose physical examination is completely negative and whose history throws considerable doubt on the likelihood of his ever having acquired syphilis. Such a diagnosis unfortunately still connotes considerable stigma to many patients and the attendant anxiety and mental conflict can have a much more profound and detrimental effect on the patient than the disease itself.

Thus, where there is a reasonable doubt of the diagnosis, one should first attempt to eliminate possible causes for nonsyphilitic positive reactions. In the present state of knowledge, this is often extremely difficult to do. Not infrequently one runs up against the proverbial stone wall and must resort to treatment despite considerable skepticism about the diagnosis.

The literature reveals numerous causes for biologic false positive reactions to serologic tests for syphilis; the number is apparently still growing. Many of the conditions listed are not commonly encountered and there is some doubt that all of them provoke nonspecific positive reactions, The other treponemal diseases—yaws, pinta, and bejel—give positive reactions, but these diseases are closely related to syphilis and their reactions are probably not classifiable as false positives.

Among the causes which are believed to produce nonsyphilitic positive reactions are malaria, smallpox vaccinations and other immunization procedures, leprosy, brucellosis, infectious mononucleosis, lymphogranuloma venereum, some upper respiratory infections, atypical virus pneumonia, and tuberculosis. Also, a small percentage of individuals, estimated at between 1 in 700 to 1 in 4,000, for some reason unknown, are biologic false positive reactors. Pregnancy or menstruation per se is no longer considered a cause for false positive reaction, neither is diabetes.

Serologists have been working on this problem for many years. At various times in the past, methods for differentiating false positive from true syphilitic reactions have been

advanced, but all have been found wanting. We have had spirochetal antigens, verification tests, and inhibition procedures, but no completely reliable method is known today for making this differentiation.

The most promising recent approach is the so-called treponemal immobilizing antibody test. Nelson and coworkers[1] have found that an antibody which is capable of immobilizing virulent *Treponema pallidum* in vitro is present in the serum of syphilitic patients only. This antibody is said to be distinct from reagin. In a group of patients with known false positive reactions to standard tests, all had sera which were completely negative for the immobilizing antibody. Thus there is a possibility that the answer to the problem of biologic false positive reactions may be forthcoming.

What steps should be taken?

With the facilities at hand, how do we approach the problem of the patient with a positive serologic test for syphilis whose history and physical examination make the likelihood of acquired syphilis extremely dubious? First of all, if possible, members of the family should be examined. If syphilis is found in either of the parents or the marital partner, the expenditure of needless effort and time may be avoided.

As far as the patient is concerned, a complete physical examination, including search for stigmas of congenital syphilis, is in order. Such clues should be looked for as Hutchinsonian incisors, mulberry molars, the so-called dishpan facies, prominent frontal bosses, saber shins, thickening of the inner third of one clavicle, interstitial keratitis, which, by the way, is sometimes detectable only by slit-lamp examination in retrospect, eighth nerve deafness, and so on. Careful examination of the lymph nodes, spleen, and lungs should be performed.

Blood smears for infectious mononucleosis and malaria parasites are sometimes indicated. The heterophil antibody test for infectious mononucleosis or determination of the sedimentation rate will occasionally give a clue. The performance of repeated quantitative serologic tests over several weeks or months in a single reliable laboratory and the checking of results by several different procedures, both precipitation and complement-fixation, in other laboratories,

may throw some light on the specificity of the reaction in such a patient.

False positive reactors are generally believed to have certain characteristics which help identify them, but unfortunately even these do not always hold. These characteristics include a tendency to fluctuate in quantitative titer, a tendency to be generally low in titer, and a discrepancy between various tests, especially between complement-fixation and precipitation procedures. The Boerner[2] screen test is based upon this latter concept; it classifies sera into twelve groups on the basis of results utilizing both a complement-fixation and a flocculation test.

If, after a comprehensive evaluation of the patient and observation of the serologic trend for a period of time, one can still not conclude whether the case represents a true syphilitic or biologic false positive reaction, the safest procedure is to administer a course of treatment, preferably with penicillin. The circumstances should be explained to the patient and every effort should be made to help him overcome the obstacles he may encounter in preemployment examinations, premarital tests, and other matters.

REFERENCES

1. Nelson, R. A., Dusendruck, J. A., and Zheutlen, H. E. *Immobilization of Virulent Treponema pallida by Antibody in Serum and Cerebrospinal Fluid of Syphilitic Patients: A Symposium on Current Progress in the Study of Venereal Disease.* U.S. Public Health Service, Washington, D.C.
Nelson, R. A., and Mayer, M. M. *J. Exper. Med.* 89:369-393, 1949.
2. Boerner, Fred *Am. J. Clin. Path.* 10:13-14, 1946.

Complete Heart Block

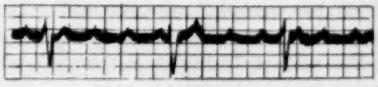
LUCIEN W. IDE, M.D.*
University of Iowa, Iowa City

USUALLY, complete auriculoventricular block is a grave prognostic sign.

The majority of patients with this arrhythmia have serious organic heart disease, particularly coronary sclerosis and hypertensive vascular disease. Digitalis is another common causative factor. Less common etiologic agents include diphtheria, rheumatic fever, and scarlet fever.

Complete auriculoventricular block may also be congenital and is then usually asymptomatic. The prognosis of congenital complete heart block is good unless other anomalies are present. The differentiation from acquired heart block is therefore important for prognostic reasons. The criteria of the congenital block are: a history of slow pulse from early life, absence of evidence of cardiac disease which could cause an acquired block, and electrocardiographic confirmation of the conduction defect.

Acquired complete auriculoventricular block occurs most frequently in males over forty years of age. This arrhythmia may in itself cause no symptoms. Palpitation can occur. The inadequate blood flow to the brain may produce symptoms of cerebral anoxia, varying from slight, transient giddiness to attacks of syncope.



Syncope occurs with periods of asystole, ventricular tachycardia or fibrillation, and with changes in the degree of block. Once established, a complete auriculoventricular block is less likely to cause syncope than is an intermittent one of varying degree.

The ventricular rate averages about 45 beats per minute or less. The pulse pressure tends to be wide if arteriosclerosis is present. Other signs of associated heart disease or digitalis intoxication are common.

Lucien W. Ide, M.D., points out that complete heart block need be treated only when symptoms result from the conduction defect. Angina or cardiac decompensation caused by the underlying heart disease requires therapy more often than the arrhythmia.

Patients with congenital heart block require no therapy. Women with complete heart block have successfully borne children. Interruption of pregnancy is usually unnecessary unless associated cardiac disease warrants therapeutic abortion.

When digitalis intoxication is responsible for complete block, the conduction defect will disappear with-

* The clinical aspects of complete auriculoventricular heart block: a clinical analysis of 71 cases. Ann. Int. Med. 32:510-523, 1950.

in a few days if the drug is discontinued. When symptoms are caused by periods of asystole or by very slow ventricular beat, administration of paredrine, ephedrine, or epinephrine may increase the ventricular rate. Syncope resulting from periods of ventricular tachycardia should be differentiated from attacks resulting from ventricular standstill since the sympathomimetic drugs, theoretically at least, would be contraindicated with ventricular tachycardia.

Duration of life with acquired complete auriculoventricular block is usually less than three years. Death may occur during an attack of syncope but more commonly is caused by the underlying heart pathology. If diphtheritic myocarditis progresses to the stage of complete heart block, recovery is rare.

Gastric Polyps

JAMES B. CAREY, M.D., AND LYLE J. HAY, M.D.*

THE symptoms of gastric polyps are not distinctive. Complaints of patients with polyps may be attributed to associated achlorhydria, anemia, bleeding, or are not related to the stomach.

James B. Carey M.D., and Lyle J. Hay, M.D., of the University of Minnesota, Minneapolis, report observations of 64 patients with simple or multiple, benign or malignant polyps. In each of 33 cases, surgical removal of the lesion was performed. Gastroscopic and roentgenographic examinations established the diagnoses of all cases.

To the gastroscopist, benign polyps or adenomas appear as small, flat-based domes or low, round-topped columns with smooth surfaces and uniform color. The margins of the bases are well defined. Malignant polyps or the adenocarcinomas have uneven, irregular surfaces with gray to white mottling. The bases are broad and merge with the surrounding mucosa. The stalk of the pedunculated form is stiff and thick.

When atrophy, achlorhydria, or pernicious anemia occur with polyps, the tumors may be either benign or malignant. Adenocarcinoma as well as benign single or multiple polyps can grow independently in one stomach. Metamorphosis of cells of benign tumors toward malignant degeneration has not been demonstrated.

The term adenoma or adenocarcinoma may be applied to a gastric polyp seen by roentgen or gastroscopic examination, or both, in a stomach which has atrophic mucosa and achlorhydria demonstrable by the histamine test. The word polyp is used for a small protuberance of the surface lining of a stomach which has normal mucosa and secretes free hydrochloric acid.

* Gastric polyps. Gastroenterology 14:280-286, 1950.

REMISSION OF POLYCYTHEMIA VERA may be achieved with nitrogen mustard therapy. Prompt suppression of erythropoiesis is the most apparent advantage. For 10 patients given 0.1 mg. per kilogram of body weight intravenously on four successive days, hematocrit reading was reduced from about 59 to 44% in a little over four weeks. Charles L. Spurr, M.D., and associates of University of Chicago, have determined that the risk of thrombosis is less if the hematocrit percentage is first diminished to 60 by phlebotomy. Only 2 patients relapsed within three months while the others had remissions of four to thirty months. The possibility cannot be ignored that this treatment may aggravate the tendency of the disease toward leukemia. Nausea and vomiting may also immediately follow the injection.

J. Lab. & Clin. Med. 35:252-264, 1950.

CIRRHOSIS OF THE LIVER may follow infectious hepatitis. The exact incidence of this complication is unknown. Strenuous activity or associated bacterial infections during the initial hepatitis attack and alcoholism seem to influence the development of cirrhosis; patients over thirty are more susceptible than younger persons. Henry G. Kunkel, M.D., of Rockefeller Institute for Medical Research, New York City, and Daniel H. Labby, M.D., of the University of Oregon, Portland, are impressed by the downhill course of this form of cirrhosis and the failure of therapy. Hepatosplenomegaly is prominent and spider angiomas are common. Liver function is abnormal, particularly with relation to plasma protein metabolism. Pathologically the lesion is an irregular nodular hyperplasia of hepatic cells with broad fibrous bands and areas of contracted reticulum. Only occasionally does the liver resemble that of true Laennec's cirrhosis.

Ann. Int. Med. 32:433-450, 1950.

RENAL LESIONS are frequently associated with chronic ulcerative colitis. Among 60 patients with the disease, endothelial proliferation of the glomerular capillaries was found in 42, report Edwin J. Jensen, M.D., Archie H. Baggenstoss, M.D., and J. Arnold Bargen, M.D., of Mayo Clinic, Rochester, Minn. Proliferation was slight in 5, moderate in 25, and severe in 12. Although ulcerative colitis may not be considered a cause of chronic glomerulonephritis, the degree of proliferation appears to be directly related to the activity of the colitis. The changes in glomerular endothelium are similar to those observed with some infectious and noninfectious diseases.

Am. J. M. Sc. 219:281-290, 1950.

TABLE I. DIAGNOSIS OF HEADACHE BY HISTORY

	LOCATION	RECURRENCE	HYPERTENSIVE SYMPTOMS	TRAUMA	FEVER, MALAISE, CHILLS	PREEXISTING CHRONIC DISEASE	ONSET	PRODROME	FAMILY HISTORY
MIGRAINE	Temporal, ocular, occipital	Cyclic interval more or less constant	0	0	0	0	Gradual, daytime	Scotomas, hunger	+
HISTAMINE	Temporal, ocular, occipital, facial	In spells, with free interval between	0	0	0	0	Sudden, day or night	0	Allergy ±
INFECTION	Frontal	0	0	0	+	0	Gradual	Fever, chills	0
CEREBRAL VASCULAR ACCIDENTS	Variable	0	+	0	±	Hypertension plus arteriosclerosis	Gradual with thrombosis, sudden with hemorrhage	Dizziness, confusion, weakness	±
SINUS THROMBOSIS	Generalized or over involved sinus	0	0	0	+	Mastoiditis, sinusitis, furunculosis	Gradual	Local infection about head	0
NEURALGIA	Over involved nerves	Frequent, irregular, unpredictable	0	Minor irritation of trigger area	0	Sometimes related	Sudden, severe	0	0
HYPERTENSION	Vertical, occipital	Once started tends to be nearly daily	Visual change, dyspnea, nocturia, edema	0	0	Renal? Idiopathic?	Gradual on waking or with excitement	0	±
SUNSTROKE	Frontal or generalized	May have a permanent susceptibility as a residuum	0	Exposure to heat or sun	May be extreme	Irrelevant	Sudden	Dizziness, weakness, palpitation	0
TRAUMA	Anywhere, frequently frontal	Yes, irregular	0	+	Weakness +, malaise ±	Psychoneurotic symptoms?	Irregular	0	0
SPINAL PUNCTURE	Generalized	May recur for seven to fifteen days	0	Spinal tap	0	0	May be intermittent	0	0
MENOPAUSE	Suboccipital, temporal, vertical	Yes, irregular	0	0	"Hot flashes" frequent	Menopause, natural or surgical	Sudden or gradual, frequent on awakening	0	0

Headache as an Emergency

PERRY S. MACNEAL, M.D.*
Jefferson Medical College and Pennsylvania Hospital, Philadelphia

THOUGH seldom a matter of life and death, severe headache is an emergency from the patient's point of view. He wants immediate relief and is in no mood for a detailed examination.

Perry S. MacNeal, M.D., therefore shortens the review of symptoms. A few leading questions will often suffice for the history and should elicit the data in Table 1.

A reasonably complete physical examination can also be done quickly. Special attention is given to the main features of common types of headache, as shown in Table 2.

Suitable treatment may prevent overuse of opiates, avoid toxic effects of unnecessary drugs, or alleviate a serious underlying disease.

Menopausal headache may be relieved by therapy used for migraine.

TREATMENT OF HEADACHE

	SYMPTOMATIC RELIEF	LONG RANGE PROGRAM
MIGRAINE	Cafergone tablets; Octin; no opiate; Dihydroergotamine; cold compresses; dark room	Histamine desensitization; psychotherapy; thyroid in selected cases
HISTAMINE	As above	Elimination of specific allergens; histamine desensitization
INFECTION	Analgesics	Treat underlying infection with *specific* drugs.
CEREBRAL VASCULAR ACCIDENT	Hypertonic glucose; caffeine; analgesics with caution	General measures. The headache usually does not persist.
SINUS THROMBOSIS	Analgesics in full doses; cool compresses	Specific antibacterial therapy
NEURALGIA	Analgesics in full doses	Thiamin hydrochloride, 50 mg. intramuscularly daily; vitamin B complex by mouth; removal of infectious foci; surgical resection of involved nerve
HYPERTENSION	Cafergone, 2 tablets only, with caution; salicylates and barbiturates; rest	Sympathectomy may relieve intractable headache even when it does not cure hypertension.
SUNSTROKE	Immediate reduction of body temperature with cold baths, cold enemas, even cold intravenous drip in critical cases; cardiac support	Avoid exposure to heat and sun.
TRAUMA	Surgical exploration if indicated by focal signs or marked increase in intracranial pressure. Do not make roentgenograms. Make diagnosis clinically. No opiate. Hypertonic glucose, 50 cc. of 50%, intravenously may help.	Nonspecific; mild analgesics and psychotherapy
SPINAL PUNCTURE	Acetylsalicylic acid, 650 mg.; Bromural, 500 mg.; Octin, 130 mg. by mouth; codeine if necessary	

* Headache as an emergency complaint. M. Clin. North America 33:1581-1596, 1949.

TABLE 2. DIAGNOSIS OF HEADACHE

	Migraine	*Histamine*	*Infectious*	*Cerebral Vascular Accident*	*Sinus Thrombosis*
General habitus	Small, slight build, delicate		0	Plethoric ±	0
Temperature, pulse, respirations	Normal	Pulse rapid	Fever, pulse slow or rapid	Fever±, tachycardia, Cheyne-Stokes ±	Fever, pulse rapid
Level of consciousness	Very slight confusion may exist	Normal	Varies, usually normal	Usually much impaired	Delirium±, drowsy
Pupillary responses	Normal (? dilated)	Normal	Normal	May be impaired	Asymmetric in cavernous type
Extraocular movements	Normal	Normal; eye flushed on affected side±	Normal except in basilar meningitis	May be impaired; nystagmus±	Marked impairment in cavernous type
Ocular fundi	Normal	Normal	Normal	Hypertensive changes±	Venous distention, papilledema
Tympanic membranes	Normal	Normal	Inflamed in otitis media or mastoiditis	Normal	Normal
Tenderness of paranasal sinuses	Frontal±	Maxillary and frontal±	Marked in acute sinusitis	0	Frontal in cavernous type
Odor of breath	0	0	0	Uremic?	0
Color of mucosa	Conjunctiva pale	Conjunctiva reddened	Normal	Plethoric	Normal
Speech defects	Slight, transient	0	0	Vary from none to complete aphasia	0
Nuchal rigidity	Some tenseness of neck muscles common	0	Marked in meningitis	Marked in subarachnoid or intraventricular	±
Blood pressure	Low	Normal	Normal	Rises at first, may be normal later	Normal
Hepatomegaly, splenomegaly	0	0	Marked in rickettsial, infectious mononucleosis, hepatitis, typhoid, etc.	±	0
Cardiac rhythm	Normal	Normal	Normal	Irregular early, normal later	Normal
Motor power	Monoplegia may occur, rarely	Normal	Normal	Varies, hemiplegia common	Normal
Reflexes	Normal	Normal	Normal	Variable, absent early, abnormal later	Normal
Jaundice	0	0	±	0	0
Petechiae	0	0	±	Embolic±	Present in general sepsis

Neuralgia	*Hypertension*	*Sunstroke*	*Trauma*	*Spinal Puncture*	*Menopausal*
0	Plethoric ±	0	0	0	Age, tense facies
Normal	Pulse may be rapid	High fever, tachycardia, tachypnea	Pulse slow in increased intracranial pressure	Normal	Normal
Normal	Normal	Coma frequent	Epileptiform convulsions, coma	Normal	Normal
Normal	Normal	Dilated	Sometimes asymmetric	Normal	Normal
Normal	Normal	Nystagmus±	Varies	Normal	Normal
Normal	Hypertensive changes	Veins may be full	Papilledema, inconstant	Normal	Normal
Normal	Normal	Normal	Normal	Normal	Normal
Maxillary, sometimes frontal	0	0	0	0	0
0	Uremic?	0	0	0	0
Normal	Plethoric	Flushed	Normal	Normal	Normal
0	0	Not characteristic	Vary	0	0
0	0	0	0	0	0
Normal	High	Low	Normal	Normal to low	Normal
0	0	0	0	0	0
Normal	Varies	May be slow or rapid	Normal	Normal	Normal
Normal	Normal unless residual from old c.v.a.	Normal	Varies	Normal	Normal
Normal	Normal	Vary	Vary	Normal	Normal
0	0	0	0	0	0
0	Occasionally seen	0	0	0	0

Continuous Brachial Plexus Block

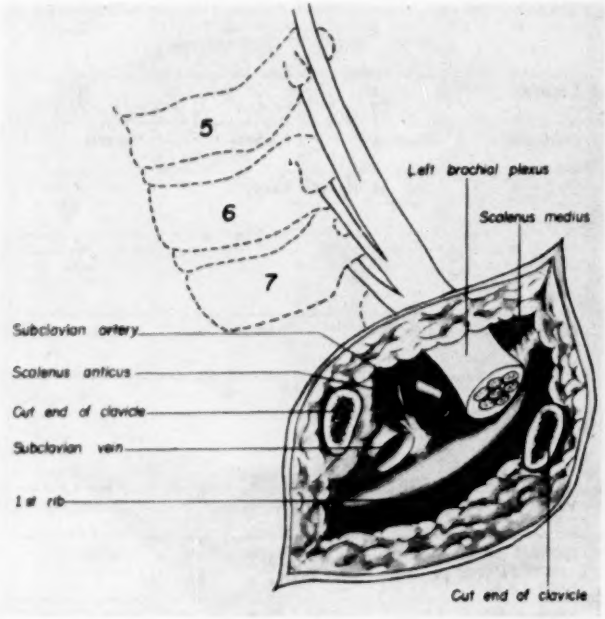
F. PAUL ANSBRO, M.D., AND S. POTTER BARTLEY, M.D.
Long Island College of Medicine, Brooklyn

RATIONALE

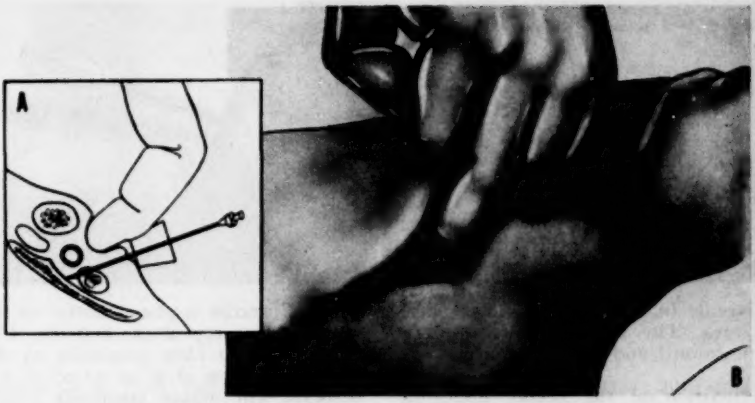
The duration of anesthetic effect is limited by the capacity of the agent to withstand absorption from the site of injection. Anesthesia produced by soluble agents (novocain) in the usual dose will disappear in less than one hour. For protracted surgery of the upper extremity, continuous brachial plexus block assures dependable sensory anesthesia. The efficacy of the block is based upon the following:

1. Placement of the needle close to the plexus, as described by Macintosh and Mushin.

2. The continuous flooding action of large volumes of 0.5 to 1% procaine.

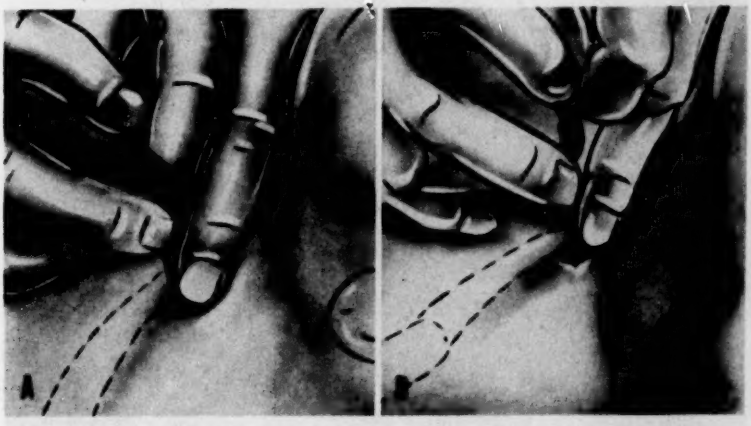


The brachial plexus is lateral to the subclavian artery, between the insertions of the scalenus medius and anticus muscles. The subclavian vein is separated from the artery by the scalenus anticus muscle, lies under the clavicle, and is not liable to puncture by needle.



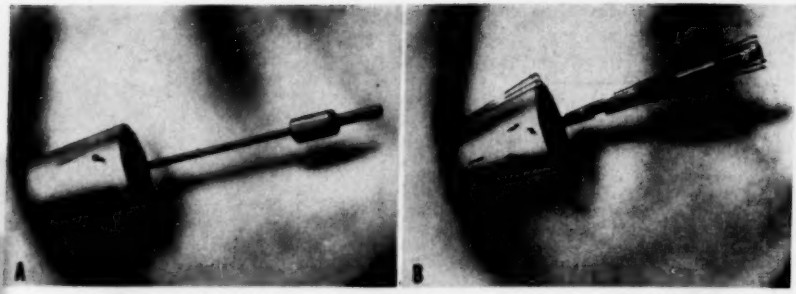
A. Palpation of pulsations of the subclavian artery as it crosses the first rib. The needle through the cork is guided by the palpating finger to a position lateral to the artery and in contact with it. When the needle strikes the first rib, the cork is brought down flush with the skin. This maneuver holds the needle upright and prevents it from penetrating deeper.

B. Palpation of subclavian artery. First step in guiding needle to position lateral to it in apposition to plexus.



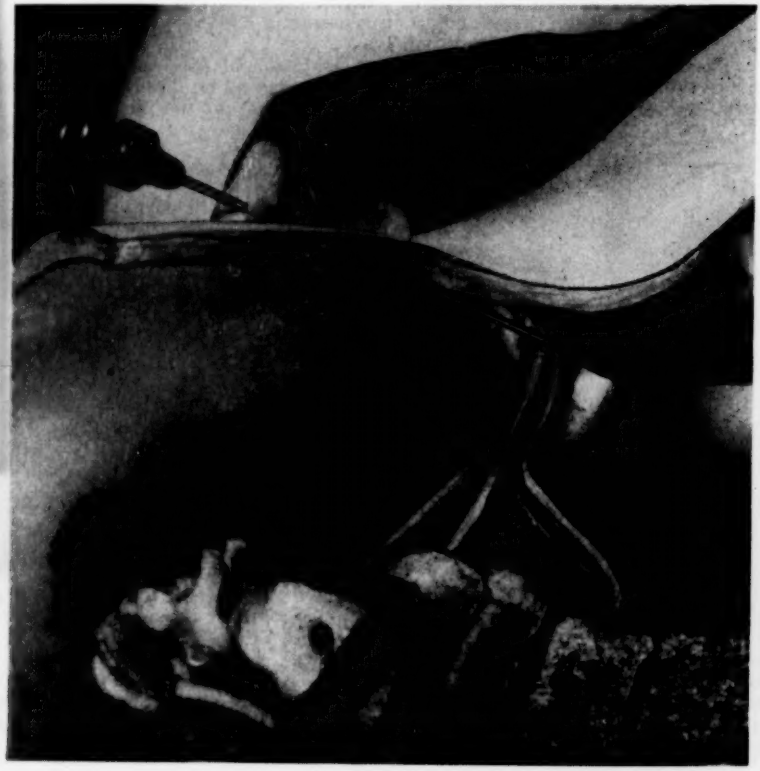
A. With finger of opposite hand above the clavicle palpating subclavian artery as it crosses the first rib, the needle through the cork is inserted through a wheal 1 cm. above the clavicle and usually at the midpoint and directed backward, inward, and downward to contact the rib. The palpating finger readily guides the needle to its proper place and prevents it from perforating the artery.

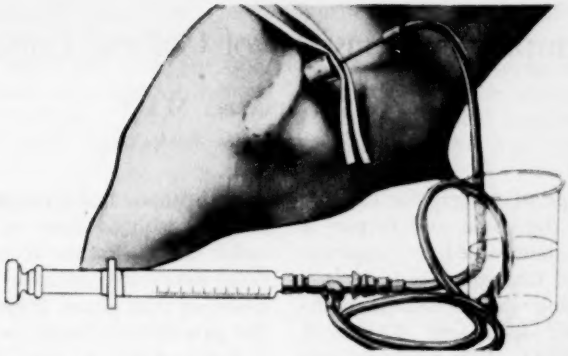
B. Insertion of the needle downward, inward, and backward. The needle has been rotated away from its correct position for the sake of clarity.



A. Needle in place in the supraclavicular area. The cork prevents displacement inward and holds it upright.

B. Pulsation of the needle indicating its close apposition to the subclavian artery. If needle is placed lateral to the artery and on top of the first rib, it is, of necessity, in close proximity to the plexus. Injection of 30 to 40 cc. of 1% novocain will induce anesthesia within fifteen minutes.





Apparatus in place and ready for fractional injections. The adhesive strapping over the cork keeps the needle in place and prevents outward displacement. The cork firmly holding the needle prevents inward displacement.

SUMMARY

1. Continuous brachial plexus block insures uninterrupted regional anesthesia for prolonged operations on the upper extremity.

2. The average duration of anesthesia was 3 hours, the longest period being 8 hours, and the shortest 1½ hours. Good sensory anesthesia was obtained in all cases. The procedures varied from open reduction operations on bones of the forearm, arm, and shoulder to repair of the median nerve and palmaris longus tendon. For shoulder operations, an additional injection must be made at the fourth cervical transverse process to block the C_4 nerve which supplies the skin of the shoulder.

3. Only 2 failures occurred with 125 blocks.

4. Toxicity was slight, and blood pressure, pulse, or respiration was not affected.

5. Postanesthetic complications were greatly decreased.

6. Perforation of the subclavian artery is of no importance. The subclavian artery is often punctured for arterial blood sample.

Adapted from an exhibit at the meeting of the American Medical Association, Atlantic City, 1949.

Lymphatic Metastases of Colonic Cancer

ROBERT S. GRINNELL, M.D.*
Columbia University, New York City

THE scope of surgery for carcinoma of the colon and rectum is chiefly determined by lymphatic extension of malignant cells.

By charting the metastatic nodes in operative specimens, Robert S. Grinnell, M.D., has estimated the ideal amounts of tissue and bowel to be removed in operations for carcinoma of each segment (see illustrations).

When the main lymphatic channels are blocked by enlarged nodes, tumor cells often spread in lateral or retrograde direction, principally through the paracolic circulation. Vessels should therefore be ligated and nodes excised at the highest possible level. As a rule, larger portions of bowel and mesentery should be removed than are commonly excised.

In a ten-year investigation, 322 specimens of colonic and rectal cancer were examined. Fat was removed by a modification of the Spalteholtz technic.

The lymph nodes were dissected under transillumination, and positions were mapped in relation to the tumor and the main blood vessels.

By the time of operation colonic carcinomas had invaded regional lymph nodes in nearly half the cases and rectal lesions had done so in more than half.

Each tumor had 5 metastases, as an average, with as many as 25 for the colon and 34 for the rectum. Tumor cells were often seen in the highest node of the tissue removed, along the principal tributary vessel.

For cancer of the cecum, ileocolectomy should be performed with high dissection and ligation of the ileocolic and right colic vessels. Care must be taken to avoid injuring the blood supply of the small intestine.

For lesions in the hepatic flexure and adjacent transverse colon, all branches of the middle colic vessels are ligated as far up as possible. In ileocolectomy the anastomosis should be made well to the left, in the middle of the transverse colon, with end-to-end junction rather than end-to-side.

Involvement of the transverse colon also requires ligation of the middle colic vessels and branches. Both hepatic and splenic flexures are freed, if necessary. The possibility of lateral spread is reduced by wide resection.

From lesions in the distal transverse colon and splenic flexure, malignant cells may pass along the middle or left colic vessels, which are therefore removed.

Carcinoma of the descending colon and sigmoid also spreads laterally when direct lymphatic drainage is

* Lymphatic metastases of carcinoma of the colon and rectum. Ann. Surg. 131:494-506, 1950.

blocked, necessitating broad resection. All branches of the sigmoid and left colic vessels are sacrificed and, in most cases, the superior hemorrhoidal circulation.

When a lower sigmoid or rectosigmoid tumor is removed by anterior resection, inferior mesenteric vessels are divided as high as local conditions permit. Distal to the tumor, as much as possible of the bowel and retroperitoneal tissue should be removed, preferably 5 cm. or more of each. Although results with excision at a distance of 3 cm. have been encouraging, the safe margin has not yet been conclusively determined.

For advanced growth, a Hartmann procedure may be done, with end colostomy in the transverse or descending colon. The lower bowel should be inverted and the inferior mesenteric artery is ligated at its origin.

In abdominoperineal surgery for tumors of the rectum, lymph nodes should be removed by a similar method. Inferior mesenteric vessels are ligated above the left colic branch, and bowel distal to the colostomy is resected.

SEGMENTS OF BOWEL AND MESENTERY TO BE REMOVED

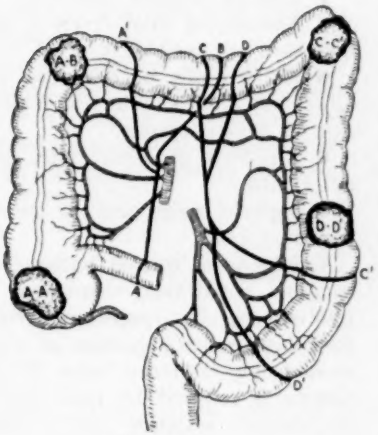


Figure 1

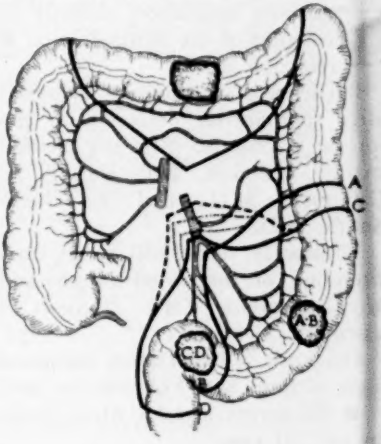


Figure 2

Modified from McKittrick

Fig. 1. For carcinoma of cecum remove A to A'; of hepatic flexure, A to B; of splenic flexure, C to C'; of descending colon, D to D'.

Fig. 2. For carcinoma of transverse colon remove as indicated; of sigmoid colon, A to B; of lower sigmoid or rectosigmoid, C to D. Broken and dotted lines indicate alternate segments of mesentery permitting high ligation of the inferior mesenteric vessels.

Volvulus of Sigmoid Colon

DARRELL A. CAMPBELL, M.D., AND R. GLENN SMITH, M.D.*
University of Michigan, Ann Arbor, and
Winnebago County Hospital, Rockford, Ill.

THE only satisfactory therapy of volvulus of the sigmoid colon is resection.

Recurrence is almost universal after spontaneous detorsion or detorsion accomplished by any method except resection, find Darrell A. Campbell, M.D., and R. Glenn Smith, M.D.

Ultimately, death will result from occlusion of the blood supply and from gangrene. Early diagnosis is essential.

Diagnosis is based upon the usual signs of large bowel obstruction and:

- Recurrent attacks, which occur in 50% of cases
- Pain, especially in the left lower quadrant, which appears in a large number of cases
- No passage of feces or gas
- Absence of vomiting and fever unless the condition is complicated or advanced
- Abdominal distention, frequently with a discernible loop filling the left lower quadrant
- Empty rectum with obstruction seen by sigmoidoscopic examination

Roentgenologic findings include:

- A large, single loop of bowel rising from the pelvis
- Greater size of this loop than of any other segment of distended bowel
- Loss of haustral markings
- Absence of fluid levels if enemas have not been used
- Hypertrophy or edema of the bowel wall shown by increased thickness of flexion creases
- Bird-beak deformity after barium enema
- Sigmoid megacolon in chronic recurrent cases.

Simple acute torsion without circulatory impairment can often be resolved by low pressure enemas, barium enema, or passage of a sigmoidoscope or rectal tube. If the torsion is reduced by these means, an elective resection and primary anastomosis should be done as soon as the bowel has sufficiently regained tone and function. If conservative measures fail, the loop should be untwisted at laparotomy and resection done immediately.

Embarrassment of circulation can be assumed if the bowel has been twisted for longer than six hours, the colon proximal to the volvulus is dilated, temperature and leukocyte counts have risen significantly, and abdominal tenderness is found. Laparotomy is imperative.

For cases with gangrene, obstructive resection is the easiest and safest procedure. When the viability is questionable, the entire loop may be

* The diagnosis and treatment of volvulus of the sigmoid colon. S. Clin. North America 30:605-611, 1950.

exteriorized. If the bowel proves to be gangrenous, obstructive resection is done. If the loop remains viable, however, the patient may be prepared with sulfasuxidine or sulfathalidine, anemia and hypoproteinemia corrected, and the colon allowed to regain preobstructed tonicity. The abdomen is reentered in five to ten days and a resection with primary anastomosis is done.

Chronic recurrent volvulus may be suspected from incidence of previous attacks with roentgen evidence of localized sigmoid megacolon and narrowing of the descending colon-sigmoid and rectosigmoid junctures. Patients with this condition should be treated by resection and primary anastomosis.

Cecostomy, rather than being lifesaving for extremely ill patients as previously reported, is illogical and is not advisable. This procedure merely decompresses the loop between the cecum and the obstruction and does not influence the volvulus loop.

Volvulus has been variously attributed to congenital factors, the consequence of aging, diet, and adhesive bands.

Regional Heparinization

NORMAN E. FREEMAN, M.D., EDWIN J. WYLIE, M.D., AND RUTHERFORD S. GILFILLAN, M.D.*

LOCAL high concentrations of heparin may prevent postoperative thrombosis in vascular surgery and decrease danger of hemorrhage from the wound.

In 3 cases of arterial emboli and 1 each of traumatic rupture and axillary aneurysm treated by surgery and regional heparinization, Norman E. Freeman, M.D., Edwin J. Wylie, M.D., and Rutherford S. Gilfillan, M.D., of University of California, San Francisco, report effective prevention of thrombus formation at the suture line in the vessel.

In arterial anastomosis, the heparin solution is injected through a needle or through a segment of polyethylene tubing inserted into the vessel just above the suture line. The clotting time is increased locally and in the vein draining the limb, but coagulability in the general blood stream is not affected.

In 2 patients, after removal of emboli which had been lodged one and three days, the intraarterial infusion was continued for nineteen hours and three days, respectively. In each of the other cases, the injection was made during surgery until the spasm of the distal arterial segment abated and good pulsatile flow was apparent distal to the suture line.

* Regional heparinization in vascular surgery. Surg., Gynec. & Obst. 90:406-412, 1950.

Active Therapy for Mediastinal Tumors

G. Alfred Dodds, M.D.*
Fargo, N.D.

Except for lymphomas, for which radiation therapy is usually effective, all mediastinal neoplasms should be explored and resected. Watchful waiting is inadvisable, since thoracotomy provides a positive diagnosis, with negligible risk.

The anterior and mid-mediastinum are the sites of carcinomas arising from the lymph nodes, metastatic lesions, and inflammatory processes such as tuberculosis and sarcoidosis. Exclusive of the lymphoma group, 75% of the neoplasms of the anterior mediastinum are teratoid tumors—dermoid cysts and teratomas. In this location, the next most common tumors are pericardial cysts.

Half the lesions of the mid-mediastinum are bronchogenic cysts. In the posterior mediastinum, 92% of tumors are of neurogenic origin—ganglioneuromas, perineural fibroblastomas, neurofibromas, and neurinomas, in that order of frequency.

Of the superior mediastinal tumors, 62% are either thyroid adenomas or thymomas. Thymic tumors are usually malignant unless associated with myasthenia gravis.

Lymphoma should be suspected when a bilateral, irregularly shaped anterior mediastinal mass is found in a patient with associated weight loss, fever, and cough, but without pulmonary indications of an acute or chronic inflammatory process. Frequently, peripheral lymph nodes are involved and diagnosis can be substantiated by biopsy.

The reaction of the tumor to a test dose of deep radiation helps differentiate a lymphoma from a benign tumor. G. Alfred Dodds, M.D., employs 1,000 r in air, giving 500 r each through anterior and posterior portals. The effects of the test dose may be striking and the tumor disappear, but one-third of lymphomas react slowly to radiation.

If no change is seen in the tumor's size after one month of therapy, exploration should be done. Although cases have been recorded of freedom from recurrence for long periods after extirpation, the preferred treatment with lymphoma is radiation.

The primary mediastinal tumors, except for the lymphoma group, are notoriously asymptomatic. The onset of symptoms generally represents a complication, such as infection or malignant degeneration.

One of the earliest symptoms is vague intrathoracic discomfort. Next a dry cough usually appears, caused by pressure on the trachea or a main bronchus. As size increases, wheezing and dyspnea become pronounced, especially with teratoid tumors of the anterior mediastinum. Dysphagia and other gastrointestinal symptoms result from esophageal involvement. Obstruction of the great vessels,

* Mediastinal tumors. Journal-Lancet 70:127-130, 1950.

particularly of the superior vena cava, is frequently observed with malignant tumors.

Mediastinal tumors are usually discovered by routine roentgenographic study, appearing as single, unilateral, sharply outlined, round or ovoid densities. The chest roentgenogram is by far the most important diagnostic aid. A lateral film will show the location of the mass in relation to the anatomic components of the mediastinum.

Fluoroscopy is of value in the diagnosis of posterior mediastinal tumors, especially when aneurysm is a possibility. However, lack of pulsation may merely reflect a laminated clot within the aneurysm, in which case angiocardiography is indicated. Under the fluoroscope, an intrathoracic goiter shows movement on swallowing and must be differentiated from a benign esophageal tumor, the only other mass producing deglutitionary ascent and descent.

Bronchoscopy is helpful in excluding primary bronchogenic carcinoma when a tumor produces pressure on the trachea or a major bronchus.

Mediastinal abscess may simulate a tumor, but a primary cause will always be found, as, for example, tuberculous spondylitis. Infection is a frequent complication of dermoid cysts.

The neurogenic tumors of the posterior mediastinum undergo malignant change with a frequency variously reported as 26 and 37%. Of teratoid tumors, 15% become malignant. Once malignancy occurs, hope of cure is remote and removal may be impossible.

•

RELAXED INGUINAL RINGS are probably not an indication of future development of hernia. In approximately 10% of examinations of 4,000 young men, L. Kreer Ferguson, M.D., and Mark W. Wolcott, M.D., of the University of Pennsylvania, Philadelphia, found rings which would comfortably admit an adult index finger. After a period of ten years, 14 of these subjects reported hernial repairs. During the same period, 8 hernias developed in a like number of men who did not have relaxed rings.

Ann. Surg. 131:584-587, 1950.

NYLON FEEDING TUBES may be used in cases of esophageal carcinoma when resection is impossible. Harry Kirschbaum, M.D., of Detroit, finds that most patients with advanced cancer of the esophagus are able to swallow semiliquids through the nonirritating tube until two or three weeks before death and that gastrostomy is often avoided. In cases of ulcer, continuous drip gastric feeding or medication is possible by the tube. With fine holes in the sides of the tubing, a spray of thrombin can be applied to esophageal varices.

J. Michigan M. Soc. 49:314, 1950.

Cancer of the Face and Mouth

LOUIS T. BYARS, M.D.*
Washington University, St. Louis

RADIATION and surgery are auxiliary, not competing, forms of treatment for cancer.

When dealing with cancer of the face or mouth, several factors influence the choice of therapy. The least consideration should be the capabilities of available specialists. More important is the type, extent, location, and growth behavior of the tumor.

When cancer is suspected, the microscopic nature of the lesion should be determined by biopsy, even if nonsurgical therapy is planned. The biopsy must be correctly performed to insure representative tissue for pathologic study. Otherwise, a misleading negative report may result.

Surgical removal may be accomplished by knife excision or thermocautery. Chemosurgery offers little advantage over the other forms of surgery, in the opinion of Louis T. Byars, M.D. Excision by scalpel allows early primary healing and is advisable when immediate repair of the surgical defect is planned.

Some extirpations are best done by thermocautery, particularly when large areas must be destroyed to effect tumor removal. Cautery is accompanied by relatively little blood loss, but healing is secondary. Defect repair must be done later.

The operative field after cautery is unreceptive to growth of cancer implants. Cautery is preferred for removal of poorly accessible tumors, since manipulation of these growths during knife excision may lead to cancer implantation.

The cervical lymph nodes are always potential sites of metastases from cancer of the face and mouth. An enlarged cervical node may be the initial sign of cancer. Some primary lesions are difficult to locate. A silent cancer of the pharynx, nasopharynx, epiglottis, tonsil, or base of the tongue may first appear as a painless lump near the angle of the mandible.

In the adult, inflammatory cervical nodes are accompanied by the usual signs and symptoms of inflammation. A painless, progressive lump in the adult neck is most often malignant and should be so considered until proved otherwise. Correct therapy of cervical metastasis is block dissection of the node, surrounding tissues, and all other nodes in the area.

Cancer of the skin of the face must receive adequate treatment. The avoidance of surgical disfiguration is poor excuse for complete eradication: An uncontrolled cancer will be much more mutilating and is eventually fatal. Current methods of

* Cancer of the face, mouth and neck: principles of surgical treatment. J. Missouri M. A. 47:169-172, 1950.

plastic repair allow great freedom of operation.

Cancer of the ear or nose is best treated by excision, because the cartilages of these structures are easily destroyed by radiation. For cancer involving the eyelids, simple extirpation with skin graft repair is recommended. Some basal cell carcinomas are not sensitive to roentgen therapy. These resistant tumors should be surgically removed. Melanomas require surgical excision. Precancerous lesions, such as keratoses, leukoplakias, and areas of radiation dermatitis, should also be removed.

Radiation therapy is often best suited for treatment of carcinoma of the lip. If the mandible is involved locally, surgical excision is necessary. If the mental foramen of the mandible or the inferior dental canal is invaded, that side of the mandible should be removed entirely. If cervical lymph node metastases are suspected, block dissection is indicated.

Radon or radium seed implantation is usually used for cancers in the mouth. If the tumor extends to bone, that portion must be surgically removed. Again, cervical block excision may be necessary.

Salivary gland tumors must be treated surgically. Radiation should not be attempted. The mixed tumor, usually of the parotid gland, often occurs in relatively young adults. These neoplasms may become malignant and must be removed by careful surgical dissection.

Encephalograms of Infants

HANS ZELLWEGER, M.D.*

IN the first two years of life, encephalograms often appear abnormal because of the extreme softness and pliancy of the infant's brain.

The incorrect diagnosis of an external hydrocephalus or a local brain lesion may be suggested by the large amounts of air in the subarachnoid space, which appears enlarged, either diffusely or in circumscribed areas, on one or both sides. Similar anomalies can be seen after subdural air insufflation, but are well delimited and can be recognized by a spur-like image along the falx cerebri in the anteroposterior roentgenogram.

Hans Zellweger, M.D., of the University of Zurich, Switzerland, examined 7 infants whose first encephalograms closely suggested external hydrocephalus, atrophy of the cortex, porencephalia, or a communicating liquor cyst. Encephalograms repeated a year or two later showed normal filling of the subarachnoid space.

A single encephalogram does not suffice for differential diagnosis. Tracings should be repeated after the second year of life.

* Beurteilung der Subarachnoidalraeme im Sauglingsencephalogram. Helvet. paediat. acta 6:531-541, 1949.

Diagnosis and Treatment of Croup

FREDERICK C. EMERY, M.D.*
New York Medical College, New York City

ONE of the most serious infections encountered in pediatric practice is acute laryngotracheobronchitis, which is commonly called croup.

The larynx, trachea, and bronchi are inflamed, swollen, and frequently covered with purulent exudate. Often a mixed variety of organisms may be responsible, and cultures reveal hemolytic streptococci, staphylococci, pneumococci, or influenzal bacilli. In some instances a viral origin is found.

The disease is most apt to occur in January through March with the peak incidence in the latter month. Another rise in incidence occurs in the fall.

Sudden changes in the weather seem to increase the number of cases, especially when a cold snap appears. Heightened heating in the home with resultant lowering of humidity may be a factor, as well as the fumes and soot from furnaces.

Most of the cases, 80%, occur between the ages of five months and three years, with the highest incidence at two years. Boys with croup outnumber girls 3 to 1. Children who die with croup are usually under two years of age; the younger the patient, the poorer the prognosis. Many of the children are overweight.

Frederick C. Emery, M.D., stresses the danger of the disease. Of 332 patients, 16 died. Symptoms are usually abrupt in onset and occur at any time of the day or night. Fever, hoarseness, croupy cough, stridor, dyspnea, and retractions at the supra- and infrasternal and the intercostal spaces are usually described. Cyanosis and prostration associated with severe toxemia may also be observed; later, dehydration, collapse, and coma ensue.

By physical examination, the doctor may find a highly excited, frantic child, struggling for air. The injected pharynx is filled with frothy sputum. The chest has many loud, coarse, inspiratory wheezes and rattles, as well as moist rales. Atelectatic areas may diminish or suppress breath sounds and impair percussion.

Principles of management include early, vigorous use of antibiotics to combat infection, the removal of secretions, and supportive measures. If the child has a very hoarse voice and difficult respirations, hospitalization is advisable.

Combined therapy with penicillin, streptomycin, aureomycin, or Chloromycetin is most important. An atmosphere high in humidity must be provided. Cold humidity is preferable to steam. Oxygen is imperative with cyanosis.

Sedation may be used to quiet an excited child, but the danger of suppressing the cough reflex and respi-

* Acute laryngotracheobronchitis. Arch. Pediat. 67:116-125, 1950.

ration must be considered. Secretions can be aspirated mechanically or may be treated by emetic doses of ipecac.

Tracheotomy is sometimes life-saving in relief of respiratory obstruction, unless the process extends far down into the bronchial tree. The tracheotomy opening may also be utilized to introduce a catheter or a bronchoscope for removing crusts and secretions.

Chalasia: a Cause of Infant Vomiting

WILLIAM BERENBERG, M.D.,
AND EDWARD B. D. NEUHAUSER, M.D.*

FAILURE of the diaphragm muscle bundles surrounding the lower end of the esophagus to exert a sphincter-like action after swallowing may cause an infant to regurgitate.

The objective evidence of the condition is repeated, frequent, and effortless vomiting which does not occur if the baby is held in an upright position.

The symptom appears a few days after birth. Usually no disturbances in growth or activity occur, although occasionally malnutrition or dehydration is noted.

Chalasia is the term chosen by William Berenberg, M.D., and Edward B. D. Neuhauser, M.D., of Harvard University, Boston, to describe this condition, which, in many respects, is the direct opposite of achalasia or cardiospasm. Fluoroscopic examination of the esophagus and stomach when filled with a thin mixture of barium is the most important diagnostic procedure. The barium is mixed with the formula or 5% glucose and fed through a nursing bottle. Heavy mixtures of barium are avoided.

The examiner sees a dilated and flaccid esophagus and reflux of barium from the stomach through the cardia into the esophagus. This retrograde filling is accentuated during inspiration or during increased intraabdominal pressure when the infant is recumbent. Diaphragmatic contraction and reverse peristalsis with gastric contraction are not seen unless regurgitation initiates real gagging followed by true vomiting.

Chalasia must be differentiated from congenitally short esophagus, diaphragmatic hernia, and obstruction of the pylorus and duodenum.

Drugs have been of no avail in treatment; and effective therapy has been limited to the feeding of thickened preparations. The patient is kept erect, particularly after meals.

* Cardio-esophageal relaxation (chalasia) as a cause of vomiting in infants. Pediatrics 5:414-419, 1950.

Gland Dissection for Cancer of Bladder

WYLAND F. LEADBETTER, M.D., AND JOHN F. COOPER, M.D.*
Tufts College and Pratt Diagnostic Clinic, Boston

A LARGE number of patients with cancer of the bladder who survive cystectomy die later with recurrence or metastasis, but autopsy often discloses only local extension of the tumor or involvement of regional glands.

To improve chances of recovery, the lymph nodes and vessels that drain the bladder should be excised as completely as possible. Wyland F. Leadbetter, M.D., and John F. Cooper, M.D., usually perform block dissection of glands, cystectomy, and bilateral ureteroenterostomy in a single operation.

In two and a half years, 15 procedures were carried out, 12 in one stage, with only 1 postoperative death. The glands removed contained metastatic tissue in 4 cases.

The pathways of lymphatic drainage from the bladder are shown in the illustrations. Since cancer of the bladder involves primarily the parietal pelvic and common iliac glands, the Wertheim procedure for cervical carcinoma can be applied.

Excised with the bladder are the perivesical connective tissue enclosing lymph channels and intercalate nodes, the lymph vessels to pelvic nodes, and the nodes. Though apparently adequate, dissection is not quite complete. While most glands about the external, internal, and common iliac vessels are obtained, the lateral sacral nodes behind the internal iliac vessels cannot be removed in this procedure. Women should also have total hysterectomy.

Using continuous spinal or general anesthesia, the abdomen is opened in the midline from the symphysis pubis nearly to the xiphoid. The liver and retroperitoneal glands are examined. A radical operation is warranted if the bladder is movable and no metastases are noted above the common iliac vessels.

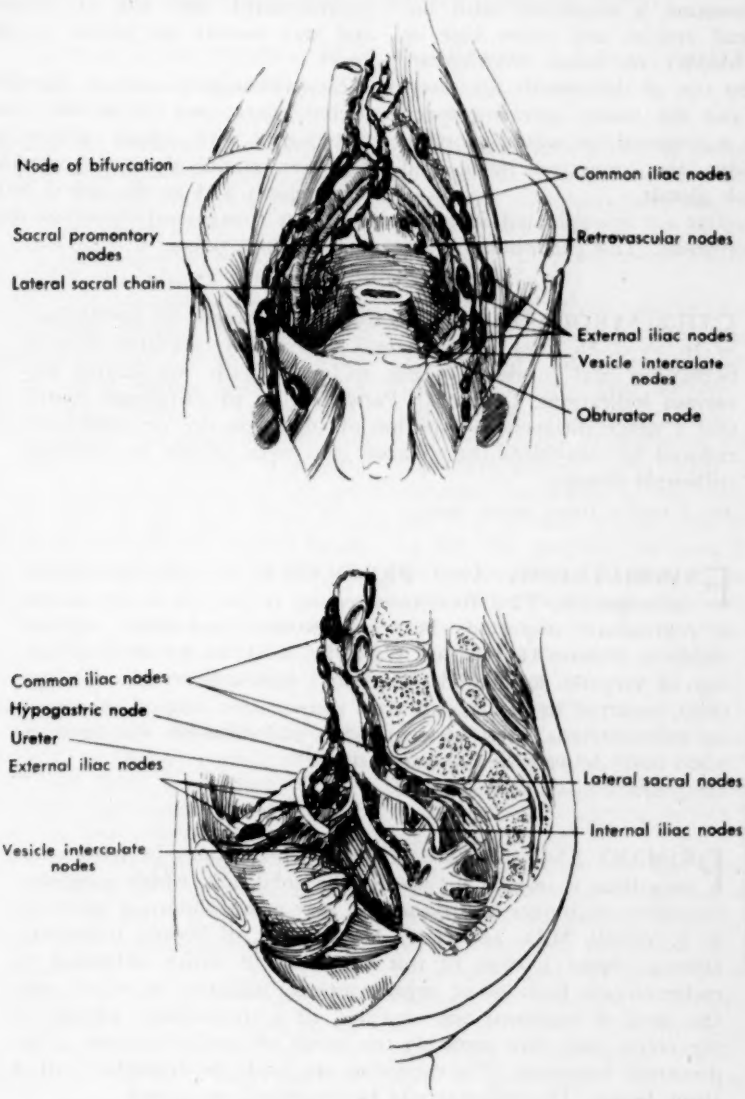
The peritoneal incision is continued over the posterior bladder surface to the anterior rectal wall. The peritoneum is then stripped from either side of the pelvis to form two large flaps, which may be folded back to expose the operative field.

Starting at either femoral canal, all connective tissue is stripped from the iliac artery and vein, including the region between the vessels, and reflected medially en bloc. The common, internal, and external iliac vessels on the opposite side are denuded in like manner, from the aortic bifurcation to the femoral canal and down to the obturator fossa.

The puboprostatic ligaments are then divided from the dorsal vein of the penis and exposed veins are ligated. The apex of the prostate is exposed, the urethra divided, and

* Regional gland dissection for carcinoma of the bladder: a technic for one-stage cystectomy, gland dissection, and bilateral uretero-enterostomy. J. Urol. 63:242-260, 1950.

PATHWAYS OF LYMPHATIC DRAINAGE



the prostate separated from the rectum.

Dissection is continued until the seminal vesicles and entire base of the bladder are freed. Attachments at the tips of the vesicles are severed, and the entire operative specimen is removed, including prostate, bladder, the connective tissue, and lymph glands.

Ureters are transplanted into the rectosigmoid. The peritoneum is sutured in a single line utilizing the pelvic flaps. Muscles and fascia are approximated with silk or cotton, and stay sutures are placed ½ in. apart.

In a two-stage procedure, bilateral ureteroenterostomy is done first, then cystectomy with gland dissection. However, glands about the common iliac vessels and at the pelvic brim are most conveniently removed during the first stage.

STILBESTROL VOMITING is frequently checked by pyridoxine. In 20 of 86 cases, severe nausea or vomiting occurred after a twenty-day oral course of 5 mg. stilbestrol daily was started for various indications. George D. Patton, M.D., of Pittsburgh found that a single intravenous injection of 50 to 100 mg. of pyridoxine reduced by two-thirds the number who were unable to continue stilbestrol therapy.

Am. J. Obst. & Gynec. 58:595, 1949.

ENDOMETRIOSIS AND PREGNANCY are not necessarily incompatible. Therefore, conservatism in therapy of the disease is particularly important in young women and those without children, declares H. Hudnall Ware, Jr., M.D., of the Medical College of Virginia, Richmond. Pregnancy, with delivery of a healthy child, occurred in 12 patients after conservative surgical treatment for endometriosis. In a thirteenth case, endometriosis was unrecognized until delivery by cesarean section.

Am. J. Obst. & Gynec. 59:715-728, 1950.

PRIMARY ENDOMETRIOSIS of the cervix may be more common than is usually supposed. The condition, which somewhat resembles carcinoma in appearance, may cause abnormal bleeding. R. S. Siddall, M.D., and H. C. Mack, M.D., of Wayne University, Detroit, report 5 cases of this condition in which extension of endometriosis from other organs seemed unlikely. In every case, the areas of endometriosis appeared in a traumatized portion of the cervix and were probably the result of transplantation of endometrial fragments. The condition can easily be diagnosed with a tissue biopsy. The lesion should be cauterized or excised.

Am. J. Obst. & Gynec. 58:765-769, 1949.

Ovulation and Postovulation Pain

DANIEL J. MC SWEENEY, M.D., AND ROBERT J. FALLON, M.D.*
Boston University and Boston City Hospital

MANY needless operations, usually appendectomies, are performed because of pain from ovulation and sequelae.

For every 13 women of menstrual age with appendicitis, 1 will appear with similar symptoms resulting from a ruptured graafian follicle, corpus haemorrhagicum, or corpus luteum cyst, observe Daniel J. Mc Sweeney, M.D., and Robert J. Fallon, M.D.

Ovulation and postovulation pain is most likely to appear in patients under twenty-five years of age and is usually on the right side. Two-thirds of patients with lesions in the left ovary experience pain on the right.

The type, location, duration, radiation, and time of occurrence in the menstrual cycle are important in diagnosis.

When pain is initiated by coitus, exertion, or straining, such activities may also cause recurrence. Except in fulminating attacks, the pulse rate does not rise, though the temperature may be elevated by the presence of old blood in the pelvis. A tendency of the white blood cell count to fall after a few hours aids in the diagnosis.

Tenderness an inch or more below McBurney's point without spasm or rebound tenderness indicates the ovary as the source of discomfort. A lateral fornix is often sensitive. A palpable, tender ovary is pathognomonic. Culdoscopy or exploratory posterior colpotomy with inspection of the ovaries through the colpotomy wound is of great assistance in diagnosis.

The pain from *simple follicle rupture* is slight, transitory, rarely radiates, and usually occurs fourteen days before the next menses. Surgery is never indicated.

The *bleeding or ruptured corpus haemorrhagicum* causes pain from perineal irritation by the escaped blood any time within two weeks of the next period. The pain tends to localize below McBurney's point, may be periodic, and lasts two or three days. Usually, the sensation radiates across the lower abdomen and, depending on the amount of blood expelled, down the leg, into the back, or along the rectum. Laparotomy may be necessary if symptoms persist several hours and blood accumulates in the pelvis. A mattress suture will control bleeding.

A *corpus luteum cyst* may cause a nagging pain at any time but usually toward the end of the cycle. If the cyst ruptures, the attack may be fulminating and resemble that with extrauterine pregnancy. Complicating the diagnosis further, the cyst may delay menstruation. Curettings may be decidua-like and a tender mass appear in a vaginal vault.

* Ovulation and postovulation pain. Am. J. Obst. & Gynec. 59:419-423, 1950.

Recent Advances in Obstetrics

H. B. VAN WYCK, M.D.*
University of Toronto

MATERNAL mortality has been greatly reduced in the last fifteen years, largely through scientific advances in the care of pregnant patients. Another important factor in decreasing maternal deaths is the improved general health of the mothers because of better feeding in their childhood.

H. B. Van Wyck, M.D., believes that one of the specific practices which have led to the saving of lives is the maternal blood survey. This survey should start in the early weeks of pregnancy, in the hospital where the patient is to be confined, so that the pertinent information is available if emergency transfusion is required.

All Rh-negative expectant mothers should be tested for antibodies. If none are found, the test is repeated at the seventh month. If the first test is positive, the test should be made at least every two months to follow the change in titer concentration. When the child is expected to be affected, a Coombs test of the cord blood should be done at birth. If positive, the child must be carefully watched by repeated hemoglobin estimations and given transfusions as necessary.

Prevention and treatment of anemia are important. The parturient should not begin labor with low hemoglobin. Patients with megaloblastic anemia benefit from liver therapy; those with the hypochromic type, from iron therapy. The molybdenum iron complex is effective in increasing hemoglobin concentration within a three-week period. A rich protein diet may also help. Severely anemic patients with less than 8 gm. of hemoglobin per 100 cc. should receive a transfusion before and after delivery.

Control of diet is essential for prenatal care. Weight gain should not exceed 25 lb. Daily nutritional requirements are:

Caloric Requirements

1] From 2,000 to 3,000 calories

2] Carbohydrate, 45 to 60% of calories, 225 to 350 gm.; fat, 40 to 45% of calories, 90 to 130 gm.; protein, 15% of calories, 75 to 110 gm.

Mineral Requirements

1] Iron—15 mg.

2] Calcium and phosphorus—1.6 gm., of which ⅔ should be supplied in milk

3] Iodine—0.2 mg.

Vitamin Requirements

1] Vitamin A—3,000 to 6,000 I.U.

2] Thiamin—0.3 mg. per 1,000 calories

3] Riboflavin—0.5 mg. per 1,000 calories

* Recent advances in obstetrics of interest to the general practitioner. Canad. M. A. J. 62:109-119, 1950.

4] Niacin—5 mg. per 1,000 calories
5] Ascorbic acid—50 mg.
6] Vitamin D—800 I.U.
7] Vitamin K—Preferably, 5 mg. to the mother at least four hours before delivery; otherwise, 5 mg. intramuscularly to the infant immediately after delivery.
8] Pyridoxine—Given empirically for nausea and vomiting in pregnancy and for microcytic anemia.
9] Vitamin E—Suggested for threatened abortion or poor uterine muscular tone.

Pregnant women are likely to neglect the protective foods. The physician should stress the five following daily requirements, which supply 750 calories:

1½ pt. milk
1 orange or ½ grapefruit
4 slices whole-wheat bread
1 serving whole grain cereal
800 units vitamin D

A proper diet tends to lessen the incidence of toxemia of pregnancy, as does the prevention of excessive weight gain. An abnormally increased weight is usually caused by salt and water retention, which may be corrected by rest, restriction of table salt, prohibition of soda bicarbonate, reduction of excess starch and sugar, and a mild saline cathartic daily.

Edema, increased blood pressure, and albuminuria must be constantly watched for. Pregnancy should be terminated if preeclampsia does not yield to treatment within two or three weeks.

With proper sanatorium care, continuation of pregnancy with tuberculosis is less hazardous than termination, an expedient rarely necessary and then only in the first trimester.

Pregnancy should be terminated early for patients in late stages of cardiac disease who have or have had heart failure. Other patients with heart conditions are permitted to continue to term under strict supervision. For such parturients, natural labor with spontaneous onset and forceps assistance in the second stage is safer than cesarean section. Termination by induction of labor or cesarean section should never be attempted during an episode of heart failure.

The fetus of a diabetic mother runs a very great risk during the last weeks of pregnancy. Termination of pregnancy is advisable by cesarean section at about the thirty-seventh week.

If a patient is approaching, or has demonstrable renal insufficiency, intervention is justified at any stage of pregnancy.

The gravida with antepartum hemorrhage should be hospitalized. The bleeding usually results from accidental hemorrhage or placenta previa, and pregnancy should be terminated in either case. With accidental hemorrhage, labor may ordinarily be induced by rupture of the membranes; cesarean section is necessary only with a closed cervix and a grossly damaged uterus.

With placenta previa, if the presenting part is engaging, the cervix dilating, and if only a moderate degree of incomplete placenta previa is present, and the hemorrhage had ceased with the rupture of the membranes, successful delivery from below may be awaited. Otherwise, ce-

sarean section should be performed.

Except in cases of absolute cephalopelvic disproportion, the obstetrician must rely on a test of labor. During the test, the patient must be protected from contamination, dehydration, and exhaustion.

External pelvic measurements may give some inkling of the pelvic type, and internal examination may supply information on the shape and size of the sacrum, sacrosciatic notch, length of the sacrospinous ligament, and divergence or convergence of pelvic walls and infrapubic angle. Outlet measurements are of prime importance.

Roentgen measurements of the pelvis and fetal head do not ensure a correct diagnosis but may assist the physician to conduct a test of labor in borderline cases. However, consideration of the overall picture is paramount in any problem of dystocia. Anything less than a proper method of x-ray pelvimetry is useless. The relationship between the sizes of the pelvis and the fetus cannot be judged by a flat plate of the abdomen.

The ideal agent for relief of pain in labor is still to be found. For ordinary practice today, demerol and hyoscine, or heroin and a barbiturate, are repeated as required during the first stage of labor. In the early part of the second stage, light intermittent administration of nitrous oxide and oxygen is the method of choice.

For delivery, cyclopropane with adequate oxygen is satisfactory, but should be used only for a short period. Curare, which relaxes the soft tissues of the pelvic outlet, can be safely employed as an adjunct to cyclopropane.

Spinal anesthesia in doses of not more than 50 to 60 μg. of procaine protects the premature child, who might suffer from routine inhalation anesthesia. Local pudendal block has the same advantages. Spinal anesthesia is contraindicated if intrauterine manipulations are undertaken. These require the relaxation afforded only by ether. Other contraindications to spinal anesthesia are shock, anemia, and hypotension.

Spinal anesthesia is satisfactory for cesarean section and is specially indicated when the infant is premature or the mother has a respiratory infection. The anesthetic effect must not reach above the umbilicus.

Prevention of asphyxia begins while the child is in utero, by avoidance of the excessive use of analgesics and general anesthetics. After delivery, the child is held by the feet head downward and the mucus cleared from the nasal passages and pharynx by an ordinary mucus tube. If respiration begins promptly, the cord need not be severed until pulsations cease. If, however, the child does not breathe promptly, the asphyxia must be dealt with at once. After the larynx and trachea have been cleared by a catheter, oxygen may be supplied by blowing gently with cheek pressure through the catheter. Unless the respiratory center is gravely depressed, an open airway and a warm environment usually initiate respiration.

Most deaths from postpartum hemorrhage are preventable. Proper conduct of labor will prevent almost all such hemorrhages.

Other improvements in maternal care include earlier rising, anticoagulants for postpartum thrombosis, antibiotics for puerperal infection, ultraviolet lamp for the healing of perineal repairs, routine use of episiotomy for primiparas, antepartum administration of vitamin K, and meticulous postpartum examination and care.

Galvanic Skin Response and Hearing Ability

PETER HOBART KNAPP, M.D., AND BERNARD H. GOLD*

PRECISE measurement of a subjective phenomenon, like hearing, is not easy, especially in cases of psychogenic deafness.

However, objective evidence of an individual's ability to receive sound may be obtained by an instrument that measures the electrical changes in the skin in response to stimulation by sound. The reaction is best detected in the palm of the patient's hand and apparently results from sweat gland activity.

The galvanic test is valuable in diagnosis of auditory disorders and confirms the interaction of emotional with mechanical forces in the etiology of many cases of hearing loss, find Peter Hobart Knapp, M.D., of Boston University and Bernard H. Gold of the Veterans Administration, Chicago.

The method employs a Wheatstone bridge with a vacuum tube amplifier across the detector arm, the skin resistance of the patient as the "unknown" arm, and a microammeter for recording purposes. The subject sits in a soundproof room with 2 gauze pads strapped to his palms.

After a ten-minute waiting period in which the palm pads become stabilized, speech is introduced through a voice attenuator. Intensity of the sounds is changed by increasing the decibels and the patient reports what he hears. Measurements are recorded every two and a half seconds by the examiner, who sits behind the patient.

Three levels are noted: [1] the first alteration in skin resistance, [2] the point at which sound is recognized, and [3] the level at which speech is accurately heard. In a normal human being, the threshold for awareness is about 5 decibels lower than that for consecutive speech.

The results in 121 cases showed that in 88% a clear reflex response was obtained when sound reached critical intensities. The test is diagnostically valid in better than 90% of cases of psychogenic hearing loss.

* The galvanic skin response and diagnosis of hearing disorders. Psychosom. Med. 12:6-22, 1950.

Medical Forum

Discussion of articles published in MODERN MEDICINE *is always welcome. Address all communications to The Editors of* MODERN MEDICINE, *84 South 10th St., Minneapolis 3, Minn.*

Blood Pressure and Surgical Position*

TO THE EDITORS: The practice of anesthesiology may be based on the fundamentals of research and teaching. The article on blood pressure and surgical position by Drs. L. H. Peterson, Kenneth F. Eather, and Robert D. Dripps not only indicates the valuable information obtained through research methods but can be used in teaching anesthesiologists and surgeons that it is easily possible to disrupt the normal physiologic balance of respiration and circulation without meaning to do so, that is, by the maintenance of abnormal positions of a patient during surgery.

Blood pressure, pulse, and respiratory readings during anesthesia for surgical procedures are a set of relative values which serve as a guide to the well-being of the patient. Blood pressure readings are as important to the anesthesiologist as an adding machine to the accountant or a compass to the sailor.

If blood pressure determinations are so important in research, they should be even more important in the clinical practice of anesthesia.

H. C. SLOCUM, M.D.

Galveston

*MODERN MEDICINE, Mar. 1, 1950, p. 64.

► TO THE EDITORS: All adults undergoing major surgery, or minor surgery under general anesthesia, should have preoperative recording of blood pressure. The operating surgeon himself should know what the patient's preoperative blood pressure is before the anesthetic is begun. As he is responsible for the patient's welfare, the surgeon should know, before deciding to proceed with the scheduled operation, of any important change in the patient's blood pressure during the induction of anesthesia.

An adequate history and physical examination are the two most important procedures in determining preoperatively the physiologic condition of any patient. Next in importance in the apparently uncomplicated surgical case, are the urinalysis and complete blood count and, next, the blood pressure, which is primarily a part of the physical examination. The known, or suspected, complicated surgical case requires special blood chemistry studies.

Blood pressure is important not only as observed at a single reading, but even more so as it is found to vary from previously observed levels. This variation becomes of particular importance just before or during

THE PERFECT PICNIC (ALMOST) BY CORKA

1

THEY THOUGHT OF EVERYTHING **BUT**

THE O'NEILL FAMILY ADORES PICNICS... SO DOES NEXT-DOOR JANEY (SHE'S THE ONE WITH CURLY LOCKS). THEY CAN WHIP UP A LUSCIOUS PICNIC BASKET IN LESS TIME THAN IT TAKES TO GET THE CAR OUT OF THE GARAGE. THEY FORGOT ONE THING THIS TIME, THOUGH! KNOW WHAT IT WAS?

2

IT'S A HAPPY DAY **BUT**

THE O'NEILLS SHOULD HAVE SELECTED ANOTHER SPOT — AWAY FROM THAT PARTICULAR BUSH. THEY'LL PAY FOR THEIR IGNORANCE TOMORROW... ALL BUT LITTLE JANEY, WHOSE MOTHER KNOWS A THING OR TWO ABOUT PRETTY GREEN LEAVES AND PROTECTION AGAINST 'EM.

3

THEY ALL HAD A GOOD TIME **BUT**

WHAT IN THE WORLD IS THAT PRETTY BUNCH OF GREEN LEAVES MOM IS BRINGING HOME? SHE'LL KNOW BETTER NEXT TIME BECAUSE THE O'NEILLS ARE GOING TO GET SOME GOOD ADVICE TOMORROW FROM NEXT-DOOR JANEY'S MOTHER.

4

BUT

THE O'NEILLS WEREN'T PROTECTED AGAINST POISON OAK & IVY...

POISON OAK OR POISON IVY ISN'T FUNNY — OUTSIDE OF COMIC STRIPS. YOU'LL DO ALL YOUR PATIENTS A GREAT FAVOR IF YOU ADVISE.

ORAL PREVENTION WITH CUTTER **POISONOK**®

INJECTION THERAPY WITH CUTTER **TOXOK**®

CUTTER Toxok®

3 × 1 cc. doses in disposable syringe equipped with 3 needles

CUTTER Poisonok®

13 cc. size furnished with rubber dropper.

THE TIME TO START **POISONOK** PROPHYLAXIS IS RIGHT NOW — FOR THREE TO EIGHT MONTHS' PROTECTION AGAINST BOTH POISON OAK AND IVY.

A full size professional sample of either Poisonok or Toxok will be sent upon request. Write Cutter Laboratories, Berkeley, California, Dept. F-34

CUTTER LABORATORIES • BERKELEY, CALIFORNIA

neutralization
minus
gastric
interference?

yes

Yes...with Al-Caroid Antacid-Digestant.

Al-Caroid, by providing "Caroid," overcomes a common objection to antacid therapy...that of inhibiting pepsin activity and so disturbing gastric digestion. "Caroid," a potent enzyme, assists in the maintenance of protein digestion while a balanced combination of antacid salts affords quick and effective neutralization of hyperacid stomach secretions.

Thus, in prescribing Al-Caroid, the aim of antacid therapy is accomplished...neutralization without gastric interference.

Tablets—in bottles of 20, 50, 100, 500 and 1000.
Powder—in 2 oz., 4 oz., and 1 lb. packages.

AL-CAROID antacid-digestant

send for literature and trial supply

American
Ferment
Company, Inc., 1450 Broadway, New York 18, N. Y.

anesthesia and in the immediate postoperative period.

In spite of many new and impressive laboratory tests for various abnormalities of the patient's physiologic processes, the conscientious surgeon and the observant anesthetist can still rely pretty much upon the simply recorded pulse, respiration, and blood pressure of the patient. The knowledge of fluid or blood loss or gain must, of course, be taken into consideration.

The factors which influence blood pressure during an operation are many, but from the practical point of view they all fall into three prime categories: [1] the volume of the circulatory bed, [2] the amount of circulating blood occupying that bed, and [3] the pumping power of the heart. At any given moment, the blood pressure reading, considered together with pulse rate, gives the best idea of circulatory adequacy or inadequacy.

For all practical purposes, frequent observations of blood pressure, pulse, and respiration during surgery are sufficient.

Wherever the anesthetist has developed from simply the person who puts the patient to sleep, into the patient's attending physiologist, the surgeon need no longer think chiefly of speed. He can be as thorough, careful, gentle, and accurate as he may desire. Thanks to the advent of the surgeon and the anesthetist who think in terms of their patient's physiology as well as of what anatomic changes their technic can create, the days of the speed artist and the sleight-of-hand operator are passing. And there are fewer instances of the hoary and horrid saying, "The operation was a success, but the patient died."

A basic contributing factor to the creation of improved operative technic is the increasing custom of observing the patient's blood pressure, before, during, and after operation, supplemented by immediate correction of any circulatory inadequacy which the blood pressure readings may indicate in conjunction with other observed factors.

For most ordinary operations and for most ordinary surgical risks, the conventional arm cuff and stethoscope method of interval recording of blood pressure should suffice. For bad risks, the use of a continuous blood pressure visual recording technic will prove a distinct advantage.

A few rough clinical rules relating to blood pressure must be kept in mind:

- Spinal anesthesia should never be used for a patient whose systolic blood pressure is below 100.
- High blood pressure itself is not a contraindication to major surgery, provided the elevation is not of very recent development, the heart is not in, or on the verge of, decompensation, and the anesthetic or the surgery will not cause a drastic fall in systolic or pulse pressure.
- Adequate cerebral circulation must be maintained at all times, with adequate oxygenation of the blood.

1] If blood pressure falls below 95, the patient should be placed so that the head is as low or lower than the heart.

2] Next, the total circulating fluid volume should be increased by

intravenous glucose, electrolytes, plasma, blood, or blood substitute. This need is best anticipated by having a simple intravenous infusion dripping slowly at the start of any procedure which will last over one hour or create loss of fluids.

3] Finally, the body's vasoconstricting mechanism is stimulated by injected drugs.

Recording the blood pressure is by far the simplest and perhaps the most important single step in the prevention of so-called operative or postoperative shock.

The term postoperative shock now includes the postanesthetic or postoperative anuria which, during the war, came to be associated with the crush syndrome and which is now referred to as lower nephron nephrosis. All these conditions are now recognized as secondary effects of a fall in blood pressure below 80 for a length of time sufficient to cause ischemic, anoxic damage to the renal tubules. As the kidney tubules do not tolerate failure of blood perfusion of their capillaries for more than a very few minutes, the importance of knowing the surgical patient's blood pressure is projected through the first postoperative week.

S. W. HARTWELL, M.D.
Muskegon, Mich.

► TO THE EDITORS: In my mind there is no question whatsoever regarding the value in certain instances of continuous recording of blood pressure in some types of surgery during anesthesia.

Certainly in some cardiac patients during prolonged and devastating operations and other selected instances, these records may be of great value. In a well-conducted anesthetic procedure, the anesthetist is always cognizant of circulatory problems and is continually making observations regarding these conditions, but a continuously recorded blood pressure would take some of the burden off the busy anesthetist during particularly severe operative procedures.

There are mechanical and economic problems concerned with continuous recording of blood pressure. However, it does not seem necessary to carry out this procedure for the average surgical operation under usual conditions.

LEWIS H. WRIGHT, M.D.
Great Neck, N.Y.

Surgery for Allergic Manifestations*

TO THE EDITORS: In the instances in which I have endeavored to attack allergic problems with surgery or even when I have attempted other types of surgery in the presence of allergy, I have been very disappointed in the results achieved. I wholeheartedly subscribe to the majority opinion in this connection and do not believe that allergy is affected in the slightest by surgery of the sinuses or nose, as advocated by Dr. Francis L. Weille.

I realize that some authorities do subscribe to this type of procedure and I intend to keep an open mind on the subject. However, I have always questioned the thoroughness of the follow-up on these patients. All

*MODERN MEDICINE, Apr. 1, 1950, p. 68.

in arthritis

- *unlike gold and other drugs*

safe detoxifying colloidal sulfur

- *relieves pain*
- *reduces joint swelling*
- *produces clinical remission even in the most severe cases*

Sulphocol® *colloidal sulfur compound*

ORAL AND PARENTERAL

Sulphocol Capsules (5 gr.) 1 or 2 after meals. Bottles of 100. Sulphocol Sol (parenteral), 25 cc. vials; 12 and 100-2 cc. vials. 1/4 to 1/2 cc. intramuscularly at 3 to 7 day intervals, gradually increased to 3 cc. Write for literature and samples of Sulphocol Capsules.

MULFORD COLLOID LABORATORIES PHILADELPHIA, U.S.A.

A Product of the Mulford Colloid Laboratories

THE NATIONAL DRUG COMPANY, PHILADELPHIA 44, PA.

Manufacturers of Pharmaceutical, Biological and Biochemical Products for the Medical Profession

the articles I have read on this subject have merely expressed the author's opinion in this connection and have cited neither controlled studies nor scientific evidence of their beliefs.

WILLIAM K. WRIGHT, M.D.

Fargo

► TO THE EDITORS: Surgery for the relief of allergic conditions of the respiratory tract has only incidental and accidental value and should not be instituted with the thought of curing the allergic state. The allergic state continues to exist in the patient with allergic rhinitis or asthma following nasal polypectomy or sinus surgery; and, in general, the continuation of the asthmatic symptoms or the reappearance of nasal obstructive symptoms can be prevented only by adequate anti-allergic management—elimination, desensitization, antihistamines, and so forth.

True, an occasional asthmatic patient gets relief for a period of time after sinus surgery, but apparently this relief results from some general change in his physiology following the surgery, as the same effect may be seen in the allergic individual after other types of assault upon his person. For example, asthmatic relief is sometimes seen following a general surgical procedure, such as cholecystectomy; an infection, like pneumonia; or a severe psychic trauma, as in the case cited by Dr. Francis L. Weille, in which the death of the patient's mother cleared an asthmatic's symptoms.

Impressive are the number of individuals seen in any rhinologic allergy practice who years ago had extensive nasal and sinus surgery with no relief of their nasal symptoms but who, after very simple anti-allergic measures, claim relief of nasal symptoms such as they never experienced before. Sinus surgery got its bad name thirty years ago mainly because it was performed so frequently upon allergic individuals in the hope of correcting allergic symptoms—a goal rarely obtained then or now.

On the other hand, when positive local indications—nasal obstruction or chronic purulent sinusitis—exist for polypectomy, submucous resection, inferior turbinal cauterization, or sinus surgery, the presence of an allergic state does not contraindicate these procedures. However, one should be more hesitant in predicting completely satisfactory results following these procedures for the allergic than for the nonallergic patient, as the edema-forming tendency of the allergic may well reduce the nasal airway even after submucous resection or polypectomy has corrected anatomic defects.

One can hardly expect to cure asthma by submucous resection or nasal polypectomy. However, when asthma coexists with purulent sinusitis and neither has responded to conservative therapy, surgical eradication of the sinus disease may have some helpful effect on the asthma if it is intrinsic or extrinsic-infective in type; but guaranteeing a beneficial result would, at best, be hazardous.

A final admonition—as Dr. Weille says, treat sinus conditions on the

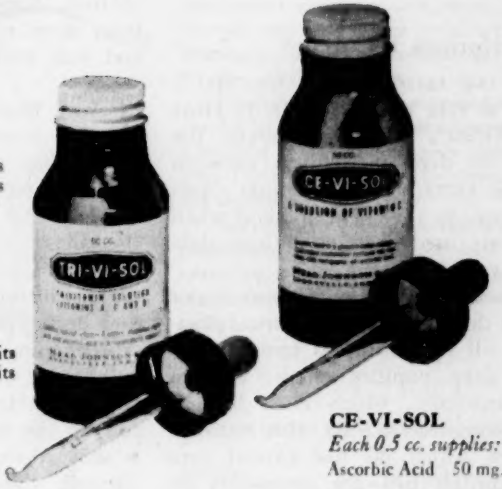
These are the VERSATILE "VI-SOLS"

POLY-VI-SOL
Each 0.6 cc. supplies:

Vitamin A	5000 USP units
Vitamin D	1000 USP units
Ascorbic Acid	50.0 mg.
Thiamine	1.0 mg.
Riboflavin	0.8 mg.
Niacinamide	5.0 mg.

TRI-VI-SOL
Each 0.6 cc. supplies:

Vitamin A	5000 USP units
Vitamin D	1000 USP units
Ascorbic Acid	50 mg.



CE-VI-SOL
Each 0.5 cc. supplies:
Ascorbic Acid 50 mg.

Flexible In the Vi-Sols the physician has *three* water-soluble liquid vitamin preparations from which to choose. Poly-Vi-Sol provides six essential vitamins, Tri-Vi-Sol vitamins A, D and C, and Ce-Vi-Sol vitamin C.

Pleasant-tasting The Vi-Sols are exceedingly palatable and make vitamin supplementation a pleasant experience.

Economical Highly concentrated, the Vi-Sols provide vitamin supplementation for infants and children at low cost.

Convenient The Vi-Sols are supplied in 15 and 50 cc. bottles accompanied by easy-to-read calibrated droppers to make administration easy and dosage accurate.

MEAD'S

MEAD JOHNSON & CO.
EVANSVILLE 21, IND., U. S. A.

basis of the clinical findings rather than on the basis of roentgenographic reports. Long-since-cured sinus conditions often leave changes that are reported upon x-ray examination as sinusitis. In the absence of nasal and sinus symptoms a grave mistake is made in treating these patients as if they had active sinusitis.

NEILL F. GOLTZ, M.D.

St. Paul

Prescriptions for Acne*

TO THE EDITORS: It is not that I want to take issue with Dr. E. Hoyt De Kleine's statements about the value of deep mechanical abrasion in the therapy of acne scars (Apr. 15, 1950, p. 112). The method when properly used appears to have definite value.

However, Dr. De Kleine's letter states that in "*deep* mechanical abrasions all epithelium is removed except deep papillae of the stratum germinativum, which must be left for regeneration. By this technic, lesions which do not extend into the corium—pits—are completely removed and deeper defects—abscess scars—regenerate with smoother margins." To this I reply:

1 The epidermis of the face has few and very short rete ridges. These are often called rete pegs, but never called papillae. Papillae are the finger-like, blood-vessel-bearing projections of the corium which extend upward between the epithelial rete ridges. It is practically impossible to remove all epithelium of the face and leave any of the stratum germinativum of the epidermis. Nor is this necessary, as the epidermis of the face is easily regenerated from the epithelium of the many hair follicles and glands which, of course, reach much deeper.

This fact has been made use of for many years in the operation for rhinophyma. There the entire epidermis and much of the hypertrophic corium and glandular tissue are ablated. Regeneration takes place from deep remnants of the glands and hair follicles.

2 Acne lesions "which do not extend into the corium" do not exist. The total thickness of the facial epidermis is not more than 0.1 mm. All pits are the result of the inflammation of sebaceous glands which are located *beneath* the epidermis, in the corium. Corium, cutis, and derma are synonyms.

Acne pits are scars, and scars result only where connective tissue, that is, the derma, is involved. Simple loss of the epidermis heals without a scar. Abscess scars usually extend through the corium into the subcutaneous layer.

Whoever uses deep abrasion must be fully aware that he removes not only epidermis, but also the entire finely woven subepidermal part of the corium, the papillary layer, which is largely responsible for the normal palpable texture of the skin. He is also liable to remove quite a proportion of the relatively superficial lanugo hair follicles and some of the sebaceous glands.

That is, the surgeon not only removes scars, but he produces widespread scarring. Dr. De Kleine him-

*MODERN MEDICINE, Jan. 1, 1950, p. 64.

Sacred Mistletoe

Oak-grown mistletoe captured the superstitious fancy of people in many lands. It was looked upon as sacred. It had to be gathered at a designated time and in a specified manner. In some Swiss cantons, it had to be shot down with an arrow on the third or fourth day before the new moon and caught in the left hand. Mistletoe so obtained was considered a remedy for every childhood ailment.

Superstition has no place in medicine today. The modern physician treats diseases with a selection of therapeutic agents, developed after years of scientific experimentation and research.

Today, when your prescriptions are compounded with **Mallinckrodt** prescription chemicals, they are prepared with quality chemicals of unsurpassed ***uniform, dependable purity.***

MALLINCKRODT PRESCRIPTION CHEMICALS

Iodides	Silver Salts
Bismuth Compounds	Mercurials
Iron Compounds	Salicylates
Diagnostic Aids	Mandelates
Sulfonamides	Vitamins
Anesthetic Agents	

83 Years of Service to Chemical Users

MALLINCKRODT CHEMICAL WORKS

Mallinckrodt Street, St. Louis 7, Mo. • 72 Gold Street, New York 8, N. Y.

Chicago • Cincinnati • Cleveland • Los Angeles

Montreal • Philadelphia • San Francisco

Uniform, Dependable Purity

self states that the surface left should resemble "the donor site of a thin split skin graft." These sites always heal with scarring. The procedure of mechanical abrasion is suited for badly scarred faces, but it ought not be undertaken lightly in minor cases.

HERMANN PINKUS, M.D.
Monroe, Mich.

Cerebral Effects of Contagious Diseases*

TO THE EDITORS: The incidence of encephalitis with the common infectious diseases of children—measles, chickenpox, whooping cough, and so forth—is low. However, it does occur.

Dr. Abe B. Baker is right in pointing out that the condition usually goes unrecognized by parents and physicians until months or perhaps years later. The effects of cerebral damage give rise to epilepsy, mental retardation, a spastic state of the limbs, paralysis, and, occasionally, behavior disturbances.

However, the changed behavior of the child may be due to a head injury, cerebral anoxia, or a brain tumor; these possibilities should not be overlooked. One should also rule out the possibility of an unhappy home environment as the cause of the behavior disturbance before attributing it to the effects of an attack of encephalitis at the time of one of the common infectious diseases. I agree with the author's statement that these diseases should never be regarded lightly.

H. S. LITTLE, M.D.
London, Ont.

*MODERN MEDICINE, June 15, 1949, p. 62.

Medical Treatment of Gastric and Duodenal Ulcer*

TO THE EDITORS: The symposium on the treatment of gastric and duodenal ulcer was excellent.

Dr. G. B. Eusterman has discussed briefly the physiologic and psychologic approach to therapy and one would reiterate the necessity of individualization of these concepts in treatment. Failures continue because the ulcer patient will not appreciate the effects of living habits and environment on his digestive mechanism. Aptitude tests and student guidance might play a useful role in prevention. Industry can help by careful evaluation of the worker in his working environment.

Medical therapy must be observed in detail and be applicable to individual circumstance. Coffee and tobacco are best eliminated. The diet should supply adequate energy, protein, minerals, and vitamins and should be adapted to the patient's taste.

Reconstruction therapy is advisable when agreement has evolved from discussions by internist and surgeon. The procedure chosen should meet the requirements of the particular patient.

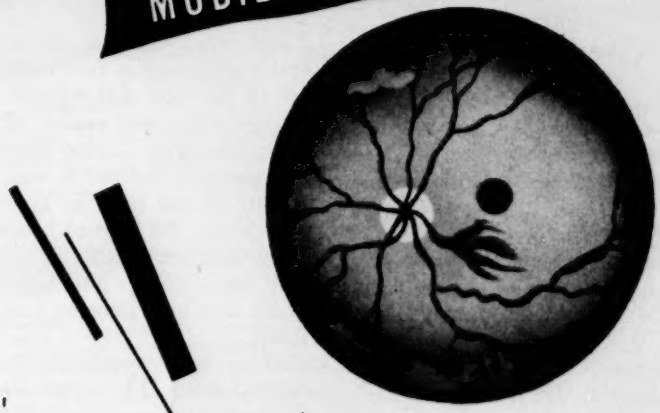
Expensive technical equipment is of value to corroborate diagnosis and observe the progress of therapy but must not supplant meticulous history and keen clinical sense. A gastric ulcer should be treated on its merits and not on a therapeutist's fear.

W. R. WADDELL, M.D.
Windsor, Ont.

*MODERN MEDICINE, Oct. 15, 1949, p. 63.

an effective agent to . . . .

MOBILIZE CHOLESTEROL



INOSITOL CSC

Accumulating evidence[1,2] is more firmly establishing the ability of inositol to reduce abnormally high blood cholesterol levels. This lipotropic agent activity has been demonstrated not only in patients with liver disease, but also in the presence of diabetes mellitus.[3]

Since hypercholesterolemia is regarded as a forerunner of atherosclerosis which in turn leads to local or generalized arteriosclerosis, inositol constitutes a sound weapon for the prevention or active treatment of degenerative arterial disease. Although the lipotropic activity of inositol is evident in the absence of all other therapy, the use of a high protein, low fat diet and the administration of other B complex vitamins is also advisable.

Inositol-C.S.C., supplied in 0.5 Gm. capsulettes, is indicated whenever lipotropic action of this substance is required. Average dose, 1.0 Gm. three times daily.

(1.) Felch, W. C.: New York Med. *5*:16 (Oct. 20) 1949. (2.) Leinwand, I., and Moore, D. H.: Am. Heart J. *38*:467 (Sept.) 1940. (3.) Felch, W. C., and Dotti, L. B.: Proc. Soc. Exper. Biol. & Med. *72*:376 (Nov.) 1949.

C.S.C. Pharmaceuticals

A DIVISION OF COMMERCIAL SOLVENTS CORPORATION, 17 EAST 42ND STREET, NEW YORK 17, N. Y.

Diagnostix

Here are diagnostic challenges presented as they confront the consultant from the first clue to the pathologic report. Diagnosis from the **Clue** *requires unusual acumen and luck; from Part II, perspicacity; from Part III,* **discernment.**

Case MM-169

THE CLUE

ATTENDING M.D: A very interesting case is being discussed in the autopsy room. Would you like to go down with me?

VISITING M.D: Yes, right away.

ATTENDING M.D: *(Walking down the stairs)* It seems that one of the City Hospital doctors was found dead in his hotel room this morning with a towel wrapped around his neck. He was discovered at about 8 o'clock this morning by his wife.

There were no signs of violence and the police can find nothing so far to indicate that he had been strangled or the victim of foul play. The towel, a face towel, was not wrapped tightly. It was overlapped in the back so as to stay on without the help of hands.

VISITING M.D: Do you know what he had been doing just before his death and how long he had been dead?

ATTENDING M.D: Apparently he had been shaving. The water was still running and was hot. His wife had heard him start the water about ten minutes before, and I would guess that he had just died when she found him. A doctor arrived within twenty minutes and he was dead at that time.

PART II

PATHOLOGIST: *(In the autopsy room)* Gross examination of the structures of the throat do not indicate that this man was the victim of strangling. I can find no evidence of any bruises or struggle. His death was apparently quite sudden. None of the usual causes of death seems likely. The brain is normal, grossly. A moderate degree of sclerosis of the coronary vessels is apparent, but this is not remarkable in a man of fifty; I see no evidence of pulmonary thrombo-

FREE:—Write for *New* fully illustrated Brochure on the Keleket "Add-A-Unit Combinations."

OUR 50th ANNIVERSARY

The KELLEY-KOETT Manufacturing Co.

2036 WEST FOURTH ST. COVINGTON, KY.

The Oldest Original Name in X-Ray

sis or embolus. Two small lacerations on the neck, such as one might make when shaving, cannot be considered significant.

VISITING M.D: *(Takes the towel which was wrapped around the man's neck and replaces it as when the body was found)* I note that the two small areas of blood on the towel coincide with the small scratch areas. Since these small cuts have bled onto the towel, I believe that the towel was around the man's neck at the time of shaving. Incidentally, he didn't use an electric razor, did he? *(An intern scurries out to one of the relatives in the next room. He reports that the razor was not electric.)*

VISITING M.D: What do we know about the doctor's medical condition before his death?

ATTENDING M.D: The only story we have is from his wife. She says that he had been in excellent health, though quite nervous and under considerable tension and strain. He had not consulted a doctor within the past two years. Prior to that I can find no pertinent history. His wife says that on several occasions in the last six months he had felt rather "queer" and lightheaded, with a little dizziness. She said that at one time he checked his pulse and told her it was "quite slow."

VISITING M.D: Had he fainted at any time in the past?

ATTENDING M.D: I don't know. *(The doctors question the relatives in the outer room and return with information that the man had fainted once in the last month. This was a transient episode and occurred while he was dressing in white tie and tails for a formal dinner. His wife recalls that he had just put on his collar. His blood pressure had always been normal.)*

PART III

PATHOLOGIST: I know what you're thinking of, yet it's hard to put the picture together. The police, of course, have made this a coroner's case, and we find no evidence of murder. On the other hand, I doubt that this is suicide. It's conceivable, of course, that with a drop in blood pressure and a slowing of the heart the doctor might have had coronary insufficiency with asystole. There is some evidence of an old infarct in the left apex of the heart, but this would hardly account for the sudden death. He may have died of coronary insufficiency without evidence of occlusion but because of relative diminution of blood flow associated with the other factors.

VISITING M.D: I think that the most likely set of circumstances is that the doctor was shaving, nicked himself twice on the neck, and, to stop the bleeding, wrapped a towel around his neck and continued his morning preparations. Hypertension of the head and neck, with pressure on a hypersensitive carotid sinus, might have produced bradycardia, hypotension, asystole, and death.

PART IV

ATTENDING M.D: I admit that this is merely speculation but am inclined to agree with you. Many patients

RADIO-OPAQUE CLOTH OF FIBERGLAS YARN *protects* PHYSICIANS AGAINST HARMFUL RAYS

Fiberglas lead-glass gown described here being worn by an X-ray technician.

According to long-term studies, leukemia has eight times the incidence among radiologists as among physicians in general.

Scattered radiation, as encountered in fluoroscopy, may be a factor. Arms, shoulders and lower legs are not sufficiently protected by the usual lead-rubber aprons, and one may speculate that continued slight radiological insult may cause a leukemic condition among operators who have delicately balanced hemapoietic systems.†

A Fully Protective Gown is Developed

To protect the hitherto-exposed parts, Dr. V. W. Archer and associates worked with Owens-Corning Fiberglas Corporation and fabricated a gown of lead-glass cloth which protects all of the body that needs protection. It transmits approximately one-tenth of the tolerance dose and is highly resistant to the beta rays of atomic fission. With its 10½ pound weight hung from the shoulders and belted-in at the waist, the lead-glass fabric gown is comfortable to wear and allows complete freedom of action.

Inert, inorganic, nonallergenic, nonsensitizing and chemically stable, Fiberglas fibers produce no harmful effect on human tissue.

Owens-Corning Fiberglas Corporation supplies adequate working samples of standard Fiberglas products to qualified persons engaged in medical research. Write Owens-Corning Fiberglas Corporation, Dept. 29-F3, Toledo 1, Ohio.

†*Archer, Vincent W., M. D., et al. Protection against X-ray and Beta Radiation with New Lead-Glass Fabric. Hospital Management. January 1950, pp. 104—106.*

OWENS-CORNING FIBERGLAS

* *Fiberglas is the trade-mark (Reg. U. S. Pat. Off.) of Owens-Corning Fiberglas Corporation for a variety of products made of or with glass fibers.*

with carotid sinus syndrome have spells such as this man apparently had, with dizziness, light headedness, and syncope. They usually become unconscious when the carotid sinus is pressed. One side is often more sensitive than the other. The vessel is apt to be tortuous and may be calcified. Some authorities have indicated that this disorder is more frequent with people who are emotionally upset and in fatigued states.

VISITING M.D: There are probably three mechanisms operating in the syndrome: [1] cardiac inhibition from the slowing to complete asystole, [2] vasodepression with a drop in blood pressure with or without cardiac inhibition, and [3] the cerebral type in which syncope appears either with or without bradycardia and hypotension. In this case I would say that a combination of all three might have occurred. People with this syndrome are usually men of at least middle age and some have cardiac infarction. Several cases of hemiplegia after carotid sinus stimulation have been reported. The spontaneous syncope with vertigo and staggering should make one suspect the all too infrequently recognized syndrome of hypersensitive carotid sinus.

"Two poll-takers, three salesmen, and a patient are waiting."

A Simplified Regimen for Urinary Antisepsis

MANDELAMINE®

BRAND OF METHENAMINE MANDELATE

ACCEPTED COUNCIL ON PHARMACY AND CHEMISTRY AMERICAN MEDICAL ASSOCIATION

—3 or 4 tablets t. i. d.

"... 1 Gm. of Mandelamine administered by mouth three or four times daily will, in the presence of normal renal function, produce and maintain antibacterial concentrations of Mandelamine in the urine."[1]

"The administration of Mandelamine maintained an acid urine without dietary restriction or other drug therapy, excepting in those cases in which urea-splitting organisms were present."[2]

MANDELAMINE* is indicated in urinary-tract infections such as pyelitis, pyelonephritis, nephroptosis with pyelitis, cystitis, prostatitis, nonspecific urethritis, and infections associated with urinary calculi or neurogenic bladder. **MANDELAMINE** is distinguished for its virtual absence of the side-effects and drug-fastness so commonly associated with urinary antisepsis.

6 OUTSTANDING ADVANTAGES

1. Wide antibacterial range — including both gram-negative and gram-positive organisms
2. No supplementary acidification required (except when urea-splitting organisms occur)
3. Little or no danger of drug-fastness
4. Exceptionally well tolerated
5. No dietary or fluid regulation
6. Simplicity of regimen — 3 or 4 tablets t.i.d.

SUPPLIED: Bottles containing 120, 500, and 1,000 enteric-coated tablets; each tablet 0.25 Gm.

Literature and Samples on Request

1. Scudi, J. V., and Reinhard, J. F.: J. Lab. & Clin. Med. 33: 1304 (1948). 2. Carroll, G., and Allen, N. H.: J. Urol. 55: 674 (1946).

NEPERA CHEMICAL CO., INC. *Pharmaceutical Manufacturers* NEPERA PARK • YONKERS 2, N.Y.

*MANDELAMINE is the registered trademark of Nepera Chemical Co., Inc., for its brand of methenamine mandelate.

Short Reports

PHARMACOLOGY

Myocardial Lesions from Digitalis

Histopathologic changes usually develop in the heart muscles of animals with hyperthyroidism given therapeutic doses of digitalis. Similar doses administered to healthy cats produce no such pathologic changes, find Dr. William H. Dearing and associates of the Mayo Clinic, Rochester, Minn. Hemorrhage, degeneration, and necrosis of the myocardial fibers result when toxic amounts of digitalis are given to animals with hyperthyroidism.

Circulation 1:394-403, 1950.

EXPERIMENTAL MEDICINE

Leukocyte Inhibition

Migration of polymorphonuclear leukocytes is apparently inhibited by the virulent tubercle bacilli pathogenic for the class of animal—mammal or bird—from which the leukocytes are obtained. The relationship of this action to pathogenicity is not clearly defined. Dr. Samuel P. Martin and associates of the Rockefeller Institute for Medical Research, New York City, find that avian strains will not inhibit guinea pig cells nor do the mammalian bacilli affect the leukocytes of chickens. Avirulent bacterial variants also appear to be ineffective. Apart from this inhibition, the leukocytes are not damaged by the bacilli.

J. Exper. Med. 91:381-392, 1950.

DIAGNOSIS

Low Urobilinogen

Antibiotics which inhibit gram-negative flora may also interfere with the conversion of bilirubin into urobilinogen. For this reason, Drs. Felix O. Kolb and David J. Oppenheim of New England Center Hospital, Boston, warn against considering negative results from the urobilinogen test as an absolute indication of obstructive jaundice during administration of antibiotics. When urobilinogen is absent in such cases, the stools should be examined carefully for color and bilirubin and the tests should be repeated after discontinuance of the drugs.

Bull. New England M. Center 12:31-34, 1950.

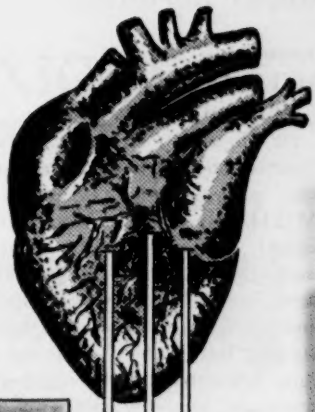
DERMATOLOGY

Iodoacetic Acid Dermatitis

Skin injuries and severe eye damage may result from contact with even minute particles of iodoacetic acid. The material, which is used in cancer tests, should be handled with great care, advise Drs. M. D. Marcus and J. B. Frerichs of the Barnard Free Skin and Cancer Hospital, St. Louis. Slight air currents, which may spread subvisible particles throughout the laboratory, should be prevented in the weighing room. Workers should wear rubber gloves and goggles or spectacles and wash exposed portions of the body immediately after handling the acid.

J.A.M.A. 142:805-806, 1950.

Write FOR THE HEART



ANGINA PECTORIS — **THESODATE Brewer**

Theobromine Sodium Acetate (7½ gr.) with Phenobarbital (¼ gr.) enteric coated for improving cardiac action and coronary circulation. Other strengths and combinations also available.

LUETIC HEART — **ENKIDE Brewer**

Potassium Iodide (15 gr.) enteric coated preferable to the solution wherever potassium iodide is indicated including its use in tertiary syphilis.

CARDIAC EDEMA — **AMCHLOR Brewer**

Ammonium Chloride (15 gr.) enteric coated for the treatment of cardiac edema with half the usual number of tablets.

Literature and Samples on request.

Brewer EST. 1852

BREWER & COMPANY, INC.
WORCESTER 8, MASSACHUSETTS U.S.A.

ENDOCRINOLOGY

ACTH for Cardiovascular Lesions

Development of cardiovascular lesions from hypersensitive reactions can probably be inhibited with ACTH. All of 40 rabbits were sensitized to horse serum. Then, 20 were treated with ACTH and 20 were not. Dr. Morgan Berthrong and associates of Johns Hopkins University, Baltimore, found no significant differences in the resultant skin reactions between the two groups although the number of intense reactions was greater in the untreated group. Only 5 of the ACTH-treated rabbits developed vascular or cardiac lesions, however, as compared with 18 of the others.

Bull. Johns Hopkins Hosp. 86:131-140, 1950.

UROLOGY

Cancer Diagnosis

Measurement of the differential uptake of radioactive phosphorus may be used to detect malignant testicular tumors. Dr. Bernard Roswit and associates of Veterans Administration Hospital, Bronx, regard any differential uptake greater than 25% as probable indication of a malignant lesion. In testing 6 patients with testicular enlargements, 2 failures in diagnosis were recorded, one a false positive and the other a false negative reading. The phosphorus uptake was unusually high in the former case because of sudden rapid growth and inflammation of a granuloma, and low in the latter because of a layer of compressed testicular tissue surrounding the seminoma.

J. Urol. 63:724-728, 1950.

INTERNAL MEDICINE

Insulin and Gastric Function

Symptoms of gastrointestinal origin are apt to occur with hyperinsulinism. Dr. William D. Poe, Roanoke, Va., points out that this conclusion can be supported only by strong impressions since exact comparison with normal individuals cannot be made. Nevertheless, more than 60% of a group of patients with hyperinsulinism, selected at random, showed major digestive symptoms and another 18% had minor symptoms. Patients with low blood sugar also have increased gastric acidity, which is apparently not entirely due to hypoglycemia. This evidence suggests that the influence of carbohydrate metabolism on the vagal apparatus is an important factor in gastric function.

Ann. Int. Med. 32:279-283, 1950.

ONCOLOGY

Cancer Test

Elevation of serum polysaccharide may be an indication of cancer. Dr. Ferdinand G. Weisbrod of University of Cincinnati considers as positive any reading above 20 units. Out of 54 patients with malignant disease, tests were positive for 39. The size of the lesion and the presence of distant metastases show a slight correlation with the degree of elevation. A positive test is not necessarily an absolute indication of cancer, since chronic infections, hyperthyroidism, and other conditions may produce the same results. Elevation appears to occur in curable as well as advanced stages of the disease.

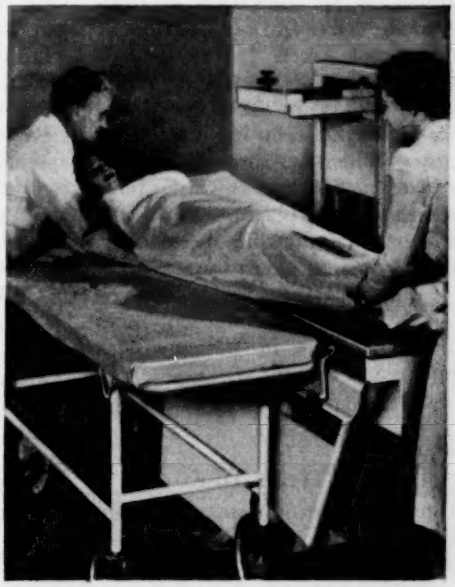
J. Lab. & Clin. Med. 35:408-410, 1950.

THE GE MAXICON

meets the medical profession's long-felt need for x-ray equipment developed to grow with an expanding practice . . . providing just the x-ray facility required . . . unit by unit as needed!

MORE than just a new x-ray unit, the Maxicon is a fundamentally new idea for a comprehensive line of x-ray apparatus. Specifically designed to grow with your practice. Yes, the Maxicon permits you to choose only the x-ray facilities you actually want or require — from the simplest to the most complete unit. Comprised of a number of components that can be assembled in various combinations, it covers the range of diagnostic x-ray apparatus from the horizontal x-ray table to the 200-milliampere, two-tube, motor-driven combination unit.

The Maxicon series has a wealth of utility wherever diagnostic x-ray is employed. The practicing physician may select the basic unit, then let x-ray grow with his practice—by simply adding successive components from time to time. The medical specialist may arrange to have only the x-ray facilities his specialty requires. The clinic or hospital will appreciate the application of a simple unit as auxiliary equipment in a busy department, or a complete radiographic and fluoroscopic combination to adequately meet the demands of any type of examination.



Discover for yourself the remarkable flexibility of the Maxicon. Ask your GE representative for unique booklet demonstration, or write General Electric X-Ray Corporation, Dept. G6, Milwaukee 14, Wisconsin.

GENERAL ELECTRIC X-RAY CORPORATION

ENDOCRINOLOGY

Hyaluronidase Inhibition

Activity of the pituitary-adrenal system can be measured by the degree of hyaluronidase inhibition occurring after the administration of epinephrine. Using fluorescein disappearance as an indication of hyaluronidase activity, Drs. Charles R. Shuman and Albert J. Finestone of Temple University Hospital, Philadelphia, find that the color disappears from the skin in about four minutes. When the adrenal cortex is stimulated with epinephrine, however, the stain persists for about twenty-one minutes. If the dye remains for any time longer than twelve minutes, the adrenal cortex is probably functioning normally. No inhibition occurs in patients with hypoadrenocorticism.

Proc. Soc. Exper. Biol. & Med. 73:248-251, 1950.

CARDIOLOGY

Diagnosis of Heart Disease

Dihydroergocornine may be used with safety in the 2-step exercise tolerance test to distinguish functional from organic heart disease. Use of ergotamine tartrate, previously employed in this test, was abandoned because of angina-provoking tendencies. Dr. Leon Pordy and associates of Mount Sinai Hospital, New York City, find that results of the test, which were positive before dosage with intravenous administration of 0.4 to 0.5 mg. of dihydroergocornine remain positive if the disease is organic but become negative for patients with functional heart disease. The drug does not appear to cause angina pectoris.

Bull. New York Acad. Med. 26:276, 1950.

TREATMENT

Analgesic Combination

Acetylsalicylic acid and benzosulfamide given together sublingually have a rapid analgesic effect. This combination may sometimes be used in place of habit-forming narcotics. Oral absorption is not only rapid but also advantageous for patients who cannot take fluids by mouth. Dr. Raymond W. McNealy of the Cook County Hospital, Chicago, believes that acetylsalicylic acid, the active agent, is absorbed more rapidly because of the benzosulfamide.

Illinois M.J. 97:150-151, 1950.

OPHTHALMOLOGY

ACTH for Eye Diseases

Pituitary adrenocorticotropic hormone has been used with good results for therapy of several ocular diseases. Drs. Dan M. Gordon and John M. McLean of New York Hospital—Cornell University Medical Center, New York City, found that the hormone was extremely effective for 1 patient with iridocyclitis and 3 with choroiditis. Some temporary benefit was observed with retinitis pigmentosa. Acute conditions are permanently checked by ACTH, but chronic conditions tend to recur. In 7 cases of inflammatory disease reported by Dr. James A. Olson and associates of Henry Ford Hospital, Detroit, symptoms were relieved in two to four hours; 4 patients have had no relapses in periods of several weeks. Of the others, 1 is still being treated. ACTH was withdrawn slowly at the end of the treatment. Diseases included acute plastic iritis, keratitis, and chorioretinitis.

J.A.M.A. 142:1271-1278, 1950.

Breakfast . . .

AND THE SPECTER OF WEIGHT GAIN

The all too common practice of breakfast skipping to prevent weight gain has again been shown to be detrimental.

In two studies recently concluded at the medical college of a prominent university, women subjects were placed on breakfasts supplying 300, 600, and 1,000 calories, and men subjects on a breakfast providing 750 calories; they were also observed during periods when breakfast was withheld entirely. Free choice was allowed in the selection of foods comprising the other two meals.

In all subjects—men and women alike—no significant weight changes were observed at any time, either during the "no breakfast" periods or when breakfast provided as much as 1,000 calories. Evidently, caloric intake during the other two meals was automatically adjusted to satisfy energy needs. In addition, omission of breakfast decreased mental acuity and maximum work output during the pre-noon hour, thus indicating a decidedly undesirable physiologic insult to the organism.

The 600 calorie breakfast used as one of the experimental morning meals was a widely accepted basic breakfast pattern consisting of fruit, cereal, milk, bread and butter. Containing virtually all essential nutrients in balanced proportion, this breakfast is satisfying and economical. It is particularly suited to supplying the amounts of nutrients and calories breakfast should provide, and is not necessarily conducive to weight gain.

The presence of this seal indicates that all nutritional statements have been found acceptable by the Council on Foods and Nutrition of the American Medical Association.

CEREAL INSTITUTE, INC.

135 South La Salle Street • Chicago 3

A RESEARCH AND EDUCATIONAL ENDEAVOR DEVOTED TO THE BETTERMENT OF NATIONAL NUTRITION

Alka-Zane*

Alkaline Effervescent Compound 'Warner'

Ionic balance in acidosis...

There are many disturbances which may "tip" the scales toward acidosis by causing a decline in the alkali reserve—fevers, diarrheas, profuse sweating, vomiting, dehydration, burns, trauma, colds, infections or wasting disorders.

ALKA-ZANE Alkaline Effervescent Compound 'Warner' is a systemic alkalizer which supplies those minerals necessary to maintain a normal ionic balance in the body—quickly, pleasantly and effectively. ALKA-ZANE is also an excellent adjuvant in sulfonamide and other antibiotic therapy where an alkaline medium has been found to provide greater safety and increased tolerance of these drugs.

Composition:

In solution each heaping teaspoonful of ALKA-ZANE* Alkaline Effervescent Compound provides approximately:

- *Sodium Citrate . . . . 41.00 grains 2.70 Gm*
- *Sodium Bicarbonate . . 25.00 grains 1.60 Gm*
- *Magnesium Phosphate . 3.80 grains 0.25 Gm*

Package Information:

ALKA-ZANE* Alkaline Effervescent Compound 'Warner' is supplied as pure white granules in bottles containing 1½, 4 and 8 ounces. The average dose is one heaping teaspoonful in a glass of water.

William R. Warner & Co., Inc.

New York *St. Louis*

*T. M. Reg. U. S. Pat. Off.

HYGIENE

Chlorophyll Deodorant

Body and breath odors can be neutralized effectively with a water-soluble fraction of chlorophyll. A single tablet containing 100 mg. of the extract is ordinarily enough to relieve body odors for eighteen hours or longer. The breath is usually cleansed immediately with 1 tablet, finds Dr. F. Howard Westcott of New York City. The odor will return when food particles remaining in the teeth are digested. The effect is more permanent if the mouth is rinsed with a chlorophyllins solution.

New York State J. Med. 50:698-700, 1950.

TREATMENT

Lead Poisoning Therapy

Deleading and alleviation of the symptoms of lead poisoning may both be accomplished rapidly with sodium dibasic phosphate. In each of 8 cases, Dr. Charles D. Proctor of Loyola University, Chicago, and Dr. Harry S. Kahn of Los Angeles County Harbor General Hospital, Torrance, Calif., noted a complete cessation of symptoms and a reduction to normal urine lead levels, usually within five days to a week after start of therapy. The dosages ranged from 15 to 60 gr. orally, or 5 to 10 gr. intravenously three times a day, and were continued from five days to about two weeks, as necessary. When the drug was also given to 3 healthy persons, lead excretion in the urine was considerably increased. No accompanying symptoms appeared.

Am. J. M. Sc. 219:316-320, 1950.

INDUSTRIAL MEDICINE

Cadmium Hazards

Proteinuria and emphysema may develop in persons exposed to cadmium dust over long periods of time. Other pathologic conditions observed in men who had been employed for at least nine years in an alkali storage battery plant were anosmia, low working capacity, increased sedimentation rate, and impaired renal function. After study of the effects on rabbits of cadmium sulfate injections and exposure to cadmium dust, Dr. Lars Friberg of Karolinska Sjukhuset, Stockholm, believes that the workers' proteinuria is exclusively the result of cadmium exposure; nickel dust may be an additional factor in causing the emphysema.

Arch. Indust. Hyg. & Occup. Med. 1:458-466, 1950.

BACTERIOLOGY

Histoplasmosis Diagnosis

Serologic studies appear to be of value in both diagnosis and prognosis of histoplasmosis. Since the disease seems to be more common than previously supposed, Capt. Samuel Saslaw, M.C., and Charlotte C. Campbell of the Army Medical Department Research and Graduate School, Washington, D.C., believe that early serologic studies will result in more definite diagnoses. When antibodies of high titer are absent in early stages of the disease, the outcome is likely to be fatal, but the prognosis is favorable when these antibodies are present in considerable numbers.

Am. J. Pub. Health 40:427-433, 1950.

NEUROLOGY

Mephenesin in Neurologic Disorders

One of the alpha-substituted ethers of glycol, Mephenesin, originally called Myanesin, may have therapeutic value in the treatment of neurologic disorders. Dr. Donald S. Bickers of the University of Illinois, Chicago, and associates find, however, that results with the drug, 3-ortho-toloxy-1, 2-propanediol, vary considerably with the individual patient and are difficult to evaluate because of the extreme suggestibility of the patients. Placebos were given to 15 of 30 patients; the other 15 received daily oral doses of 5 gm. of Mephenesin. Subjective and objective improvement was noted for 5 of the patients given the drug and for 1 of those who received nothing but a placebo. Subjective improvement alone was reported for 4 patients, all from the placebo group. Toxic symptoms such as flushing of the face, nausea, and vomiting appeared in patients from both groups and no conclusions were reached as to development of tolerance to the drug. The effect is greater but transient when Mephenesin is administered intravenously.

New England J. Med. 242:502-507, 1950.

EXPERIMENTAL SURGERY

Synthetic Hemostatic Agent

Bleeding may be controlled by LL-125, a combination of polyvinyl alcohol, sucrose, and urea. Of 155 synthetic colloid adhesives tested by Dr. M. Lester Lowry of University of Southern California, Los Angeles, LL-125 was the most efficient in producing hemostasis in rats and mice. The agents were applied topically to freshly bleeding, partially extirpated liver and spleens. When applied to cuts, wounds, or burns, LL-125 forms a soft, pliable elastic film covering which can readily be washed away by water without damage to underlying tissues. LL-125 is nontoxic and does not irritate surrounding tissue.

Arch. Surg. 60:793-805, 1950.

ANTIBIOTICS

Effects of Neomycin

Strong in vitro and in vivo action against gram-negative rods, tubercle bacilli, *Bacillus anthracis, Listerella monocytogenes,* and intestinal protozoa is exerted by neomycin. Action of the antibiotic on 370 organisms was studied by Dr. Oscar Felsenfeld, M.D., and associates of Cook County Hospital, Chicago. Very favorable results were found against *Enterobacteriaceae, Proteae,* and *Pseudomonadaceae.* Gram-positive organisms are inhibited with smaller doses of neomycin than of streptomycin. Streptomycin-resistant and streptomycin-sensitive tubercle bacilli are uniformly susceptible to neomycin. The drug inhibits *Treponemaceae* and *Endamoeba histolytica* and, in large doses, *Trichomonas vaginalis, Schizotrypanum cruzi,* and *Leishmania donovani.* In animals, experimental salmonellosis, cholera, tuberculosis, amebiasis, and rickettsialpox are prevented by neomycin in adequate doses. The antibiotic has greater activity than streptomycin and compares favorably with other antibiotics.

J. Lab. & Clin. Med. 35:428-433, 1950.

THE CASE OF MR. W. S.

HUGE CRATER ULCER
Revealed by
Gastroscopic Examination

THERAPY: Medical Management with **MUCOTIN** ★

GASTROSCOPIC PROOF OF HEALING

4 WEEKS LATER

Ulcer definitely smaller showing continuous healing.

5 MONTHS LATER

Crater gone.
Ulcer healed.
No recurrence.

Mucotin®

U.S. PAT. NO. 2,472,476

★ **MUCIN MAKES THE DIFFERENCE**

Each tablet contains: Purified gastric mucin . . . 0.16 gm. Dried aluminum hydroxide gel. . . . 0.25 gm. Magnesium trisilicate . . . 0.45 gm.

The HARROWER Laboratory, Inc., 930 Newark Ave., Jersey City 6, N. J.

Please send me: ☐ Mucotin Samples ☐ Diet Booklets ☐ Reprints

NAME_____

ADDRESS_____

31-66-5A CITY_____ ZONE_____ STATE_____

METABOLISM

Fat Tolerance and Atherosclerosis

Ingestion of large amounts of fat by persons with a low fat tolerance may be an important factor in the development of atherosclerosis. Fat tolerance, measured by the height and duration of chylomicronemia after a fat test meal varies considerably among different persons but tends to remain constant in each individual. Dr. John R. Moreton of the Joseph Edgar Tyree Memorial Laboratory for Research on Arteriosclerosis, Salt Lake City, finds that newly absorbed lipids are delivered to the blood in relatively large particles. When neutral fats are resorbed from these chylomicrons, the unresorbed cholesterol probably accumulates slowly in atherosclerotic lesions.

J. Lab. & Clin. Med. 35:373-384, 1950.

"Pass the word . . . Dr. Ross is making his rounds."

MICROBIOLOGY

Antifungal Agent

Fradicin, an antibiotic which is active only against fungi, is produced by *Streptomyces fradiae*, the same organism that produces neomycin. Dr. E. Augustus Swart and associates of Rutgers University, New Brunswick, N. J., find that fradicin is best produced in media containing glucose. The agent remains stable for thirty minutes at temperatures up to 100° at *p*H 7. Chloroform, methanol, ethanol, butanol, and amyl alcohols are solvents for the antibiotic.

Proc. Soc. Exper. Biol. & Med. 73:376-378, 1950.

GYNECOLOGY

Vulvar Luminescence

Hormone deviations at the menarche, during the menacme and pregnancy, and at the menopause can probably be determined by observation of the luminescence of the external female genitalia under ultraviolet stimulation. Drs. P. A. Macdonald and M. Sydney Margolese of the Manitoba Cancer Institute, Winnipeg, find that the variations in spectral color and intensity of vulvar luminescence are related to sex hormone metabolism. Purple coloring represents increased estrogen or progesterone metabolism. Green is apparently a background color which is visible when concentrations of either hormone are low. Cyclic fluctuations in the ovarian hormone levels are represented by red luminescence. An endocrine factor in postmenopausal bleeding appears to produce this red coloring while nonendocrine bleeding does not.

Fertility & Sterility 1:26-32, 1950.

For Hematopoietic Action in NUTRITIONAL ANEMIA

THE Knox Gelatine drink can be helpful as a protein supplement in the nutritional anemias.

Knox Gelatine U.S.P., unlike ready-flavored gelatin dessert powders with their high sugar content, is *all protein, no sugar.*

This all-gelatine product contains a good proportion of the amino acids that are of hematopoietic value. One ounce of Knox Gelatine daily in divided doses with meals, taken in water, fruit juice or milk, in conjunction with suitable iron or vitamin medication, is recommended. Address Knox Gelatine, Box R-32, Johnstown, N. Y.

FREE GELATINE PROTEIN DATA FOLDER

Latest information on gelatine as a protein food, with table of amino acid content and applications for use in special diets. This literature is free upon request.

ENDOCRINOLOGY

Arteritis Therapy

Cortisone and ACTH have been used successfully in the treatment of periarteritis nodosa and cranial arteritis. Fever disappears within a few days and the sedimentation rate decreases. Most of the patients have some hypercortisonism. Hormone withdrawal causes at least a partial relapse, find Dr. Richard M. Schick and associates of Mayo Clinic, Rochester, Minn. After several months, 2 patients with periarteritis nodosa died from cardiac and renal failure. They had been given 3.6 and 13.3 gm. of cortisone, respectively. Plasma electrolytes were profoundly disturbed. Arterial lesions had healed in both patients, but visceral infarction had occurred from fibrous obliteration of the arterial lumens. The adrenal glands of the patient who had received the largest dosage were atrophied.

Proc. Staff Meet., Mayo Clin. 25:135, 1950.

"Joe's Hardware? This is Dr. Brown. Rush over some plaster of paris. I've hit a streak of fracture cases."

GASTROENTEROLOGY

Test for Acidity

The presence of free gastric hydrochloric acid can be determined without intubation by the use of a quininium resin indicator compound. If hydrochloric acid is present in the gastric juice, Dr. Harry L. Segal and associates of Rochester, N.Y., find that the quininium cations of the compound are displaced by the hydrogen cations of the acid. Since the displaced cations are then absorbed in the small intestine and excreted in the urine, the presence of hydrochloric acid can be demonstrated by examination of the blood or urine.

Program Am. Gastroenterol. A. 1950, p. 20.

HORMONES

Methyl Testosterone Jaundice

Intense jaundice is sometimes associated with methyl testosterone therapy. Serum bilirubin was increased in 7 patients, but the cephalin-flocculation reaction was negative. Only minor changes were noted in the other metabolic functions of the liver. Dr. Sidney C. Werner and associates of Columbia University, New York City, suggest that injury to the hepatic cells may disturb the normal hydration of the bile. The jaundice is usually preceded for one or two weeks by nausea and gastrointestinal symptoms. The drug had been given to some patients for as long as four months before the jaundice appeared. Dosages ranged from 20 to 80 mg. daily. Following recovery, 3 of the patients had second courses of testosterone therapy without jaundice.

Am. J. Med. 8:325-331, 1950.

REGURGITATION IN INFANTS

EPIDEMIC VOMITING

EMETROL

Trademark

PHOSPHORYLATED CARBOHYDRATE SOLUTION

FEATURES OF EMETROL*

IMPORTANT:

NEUROPSYCHIATRY

Ether for Mental Illness

Intravenous administration of ether by slow drip may be of value in mental therapy. Of 40 patients treated by this method, 20 were discharged from the hospital and only 9 were not benefited. Dr. A. Ferraro and associates of the New York State Psychiatric Institute and Manhattan State Hospital, New York City, find that the best results are obtained with manic depressive patients. Young subjects and patients who have been in the hospital for less than one year show the greatest improvement. No correlation appears to exist between the total amount of ether injected and the results. The ether concentration used, from 2.5 to 7.5% in 5% dextrose in isotonic sodium chloride solution, is not great enough to produce more than a slight euphoria at times. About fourteen to eighteen injections were given in each case.

J. Nerv. & Ment. Dis. 111:271-287, 1950.

PUBLIC HEALTH

Syphilis Mortality

The deaths from syphilis in the United States were halved between 1938 and 1948, dropping from 16 to 8 for every 100,000 population. Dr. Theodore J. Bauer of U.S. Public Health Service, Washington, D.C., attributes the decline to the National Venereal Disease Control Program inaugurated in 1936. Infant deaths from syphilis have also decreased. In the early years of the program, mortality from paresis continued at a high level among the nonwhite population but has declined since 1946.

J. Ven. Dis. Inform. 31:95, 1950.

EXPERIMENTAL SURGERY

Ventricle Excision

A relatively safe technic has been developed for excising portions of the entire thickness of the ventricle of a dog's heart. A modified intestinal clamp is applied to the portion of the heart to be excised and is anchored at each end with silk sutures, after which the ratchet on the handles is released. The most important point in the technic presented by Drs. B. Noland Carter and Bruce G. MacMillan of University of Cincinnati, Ohio, is incorporation of the pericardium in a loosely placed continuous mattress suture for closure of the defect. Ventricular fibrillation may usually be prevented by adequate oxygenation and liberal use of 2% procaine solution on the surface of the heart and injected into the auricle. The heart should be displaced as little as possible.

Surg., Gynec. & Obst. 90:282-290, 1950.

*ALSO KNOWN AS DETTOL

A "new" Antiseptic proved by 20 years performance

New to the medical profession of the United States, Dett, under the name Dettol, is standard equipment for surgeons and hospitals throughout the British Empire. Dett, for obstetrical and surgical use, has been proved since 1929.

Dett, although deadly to germs, is gentle to human tissue. This clean, clear liquid with an agreeable odor is safe, effective, non-irritating and non-staining. Physicians who have used Dettol in other countries will welcome its introduction in the United States under the name of Dett.

For a generous size sample, and literature, write to: The R. T. French Co., Pharmaceutical Department, Rochester 9, New York.

DETT *THE MODERN WEAPON AGAINST INFECTION*

PSYCHIATRY

Hormone Mental Treatment

Deoxycortone given in combination with ascorbic acid may have therapeutic value in mental diseases. Dr. E. H. Cranswick and T. C. Hall of the Runwell Hospital, England, note considerable euphoria sometimes followed by apparent remission in patients with mental disorders of less than a year's duration. Deoxycortone was most effective in doses of 2.5 mg. intramuscularly; ascorbic acid was injected in 1-gm. amounts intravenously. A rise in the ratio of urinary uric acid to creatinine and a fall in eosinophil counts after injection in the patients who benefited by this treatment suggest the increased body production of a cortisone-like substance. Best results are obtained for patients who also improve with electroconvulsive therapy.

Lancet 258:540-543, 1950.

"Pardon me, didn't I meet you at a maternity ward five years ago?"

EXPERIMENTAL MEDICINE

Poliomyelitis Virus in Mice

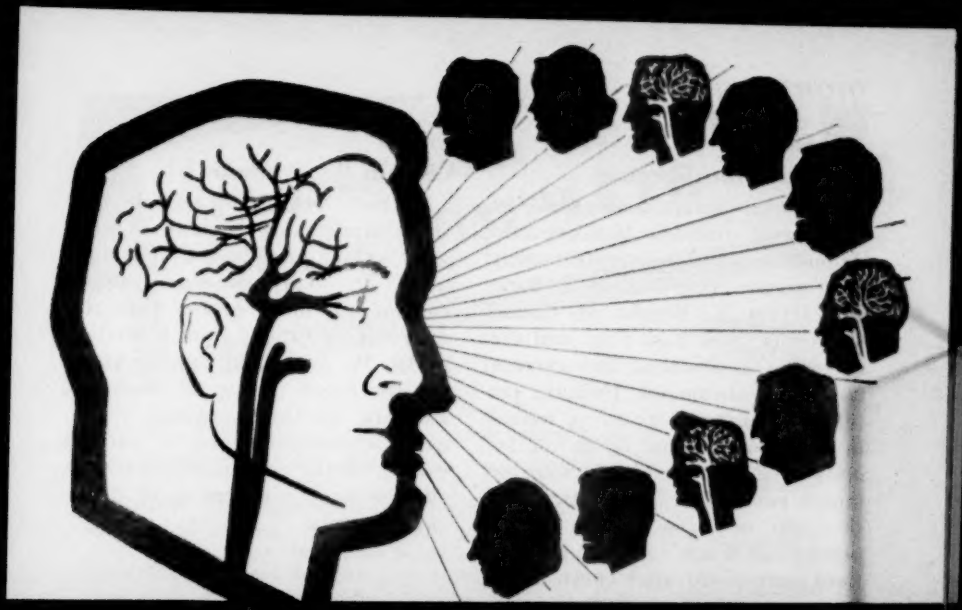
Resistance to the Lansing strain of poliomyelitis virus is greater in newborn mice than in mature animals. In the first three days after birth, Dr. Albert B. Sadin of University of Cincinnati, Ohio, finds that the incubation period is considerably prolonged over that of mice twenty-one to thirty-five days old. The difference gradually lessens until the mice are fifteen days old: Mice that become paralyzed during the first fourteen days of life survive much longer than those whose incubation periods are prolonged beyond fifteen days of age. Initiation of the infection in newborn mice requires 10 to 30 times the amount of virus needed for older animals. Since the activity of other neurotropic viruses is greatest in very young animals, the poliomyelitis virus may require some different factor or metabolic pathway for multiplication.

Proc. Soc. Exper. Biol. & Med. 73:394-399, 1950.

ANTIBIOTICS

Aureomycin Speeds Growth

The rate of growth of animals appears to be increased more rapidly with aureomycin than with any of the vitamins known at the present time. When mixed with the animals' feed, the antibiotic may speed growth by as much as 50%. Drs. E. L. R. Stokstad and T. H. Jukes of Pearl River, N.Y., find that this stimulation can be produced with as little as 0.0004 oz. to a pound of food. Action of the drug on human growth is not yet known.



Reduce the risk of vascular accident

Griffith and Lindauer,* in a study of 1200 hypertensives found capillary abnormality in some 30%. Moreover, in this group the risk of vascular accident was increased fivefold!

*Griffith, J. G. and Lindauer, M. A.: Ohio State M. J. 43:1136 (1947).

RUTOL

A Brand of Rutin, Phenobarbital and Mannitol Hexanitrate, P.-M. Co.

supports the capillaries while relaxing the arterioles in hypertension management.

VASODILATION—provided by the central effect of phenobarbital and the direct smooth muscle relaxing effect of mannitol hexanitrate on the vascular walls.

CAPILLARY SUPPORT—supplied by the effect of rutin in prevention and correction of increased capillary fragility.

Each Tablet Rutol contains:

RUTIN	10 mg. (1/6 gr. approx.)
PHENOBARBITAL	8 mg. (1/8 gr.)
MANNITOL HEXANITRATE	16 mg. (1/4 gr.)

Bottles of 100, 500 and 1000 tablets.

PITMAN-MOORE COMPANY

PHARMACEUTICAL AND BIOLOGICAL CHEMISTS

DIVISION OF ALLIED LABORATORIES INC., INDIANAPOLIS 6, INDIANA

HEMATOLOGY

Synthetic Anticoagulant

Satisfactory action is obtained with a synthetic coumarin anticoagulant, Tromexan, 4,4′ dihydroxydicumarnyl ethyl acetate. Drs. Grafton E. Burke and Irving S. Wright of Cornell University, New York City, find that the agent is absorbed and excreted faster than dicumarol. Uniform prothrombin times of 25 to 35 seconds in the undilute, and 65 to 100 seconds in the dilute plasma were obtained twenty-four hours after doses of 1,800 or 1,500 mg. to healthy persons. In a few cases, slight elevations were noted after twelve hours. With a similar initial dose and a daily maintenance dose of 600 to 900 mg., therapeutic hypoprothrombinemia can usually be maintained in patients with thromboembolic disease. Tromexan produced no toxic manifestations, except slight changes in cephalin flocculation in 1 patient with severe Laennec's cirrhosis and coronary occlusion.

Bull. New York Acad. Med. 26:264-265, 1950.

"I'm a bit under the weather."

NUTRITION

Vitamin B_{12} Synthesis

In both man and animals bacterial synthesis of vitamin B_{12} appears to take place in the alimentary tract. The daily excretion of the vitamin was much greater than the daily intake in the animals studied by Dr. W. J. C. Dyke and associates of the Evans Biological Institute, Runcorn, Cheshire, England. Parenteral administration of a purified extract of the intestinal contents is effective in the treatment of pernicious anemia.

Lancet 258:486-488, 1950.

DIAGNOSIS

Urea Determination

A household pressure cooker may be utilized for a simple determination of urea in urine or blood plasma, described by Drs. Andre C. Kibrick and Sol Skupp of the Bronx Hospital, New York City. Either 2 milliliters of protein-free filtrate from plasma or serum or 2 milliliters of diluted ammonia-free urine is placed in test tubes graduated at 10 milliliters, to which is added 0.5 milliliter of 1 M.phosphoric acid. The mouths of the tubes are then covered with tinfoil. The material is heated for sixty minutes at 20 lb. of pressure or for ninety minutes at 15 lb. of pressure. After cooling, 1 milliliter of 1 N.sodium hydroxide is added and the solutions diluted to 10 milliliters. Then 1 milliliter of Nessler's solution is added and the solution stands for ten minutes. The color is measured in a Klett-Summerson colorimeter with filter 54.

Proc. Soc. Exper. Biol. & Med. 73:432-433, 1950.

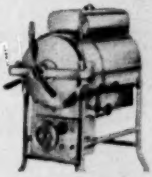
Choose from the Line That's COMPLETE

The PELTON *line affords the widest selection of private office sterilizers offered by any manufacturer:*

Portable Sterilizers, 8 to 20 inches, automatic or manual control, bright or satin chrome finish.

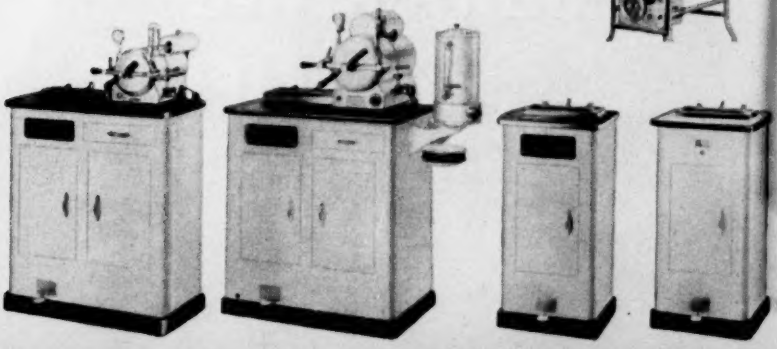
Cabinet Models featuring enamel or laminated tops, with or without timer, double or single door . . . all with interior illumination.

Autoclaves with selective temperature control at no extra cost.



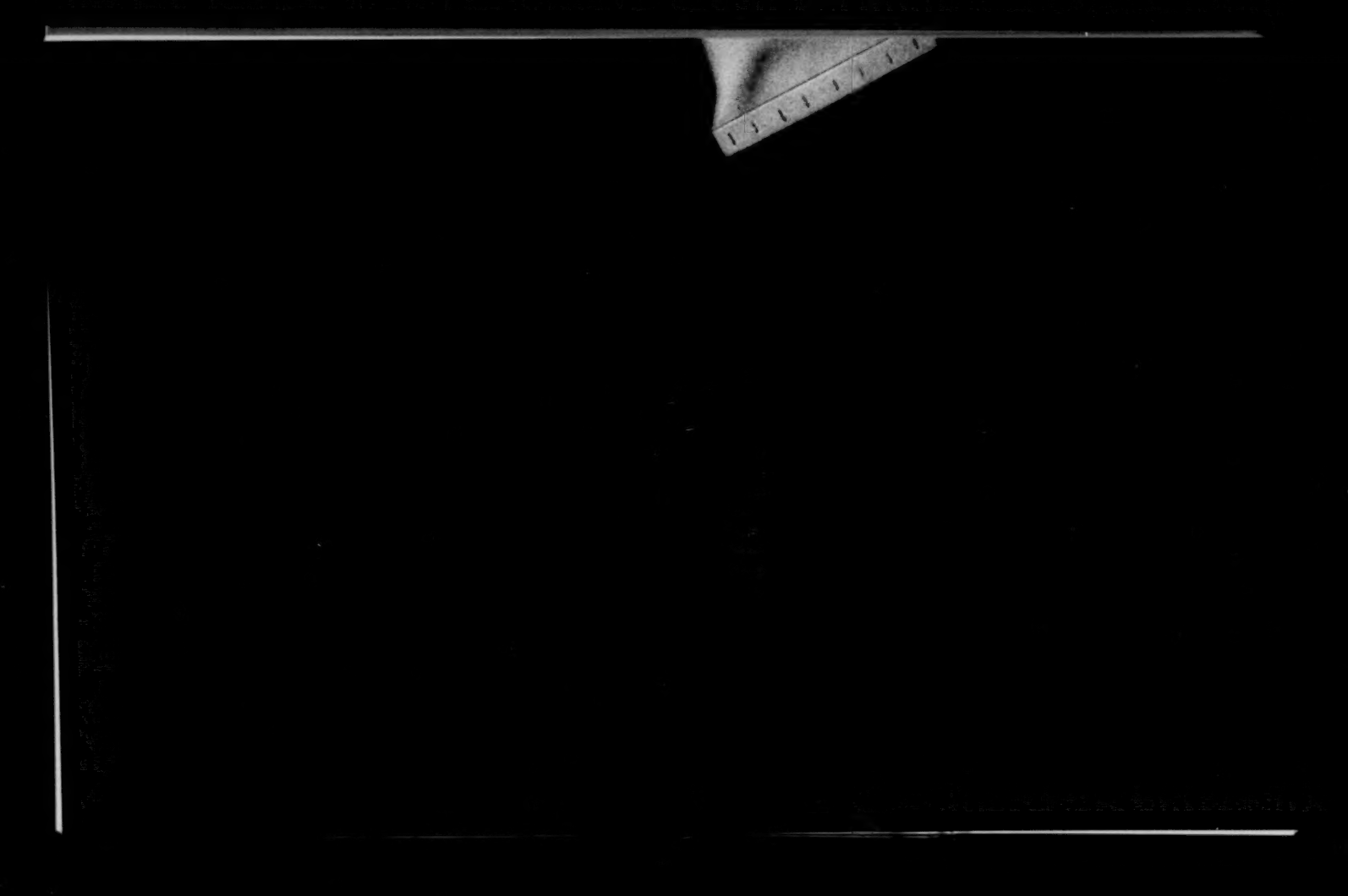
Water Sterilizers in 2- and 5-gallon sizes.

Price conscious or luxury minded, your logical choice is PELTON. *Write for complete details.*



PELTON PROFESSIONAL EQUIPMENT SINCE 1900

THE PELTON & CRANE CO., DETROIT 2, MICH.



combined anesthetic lubricant
action facilitates cystoscopy, proctoscopy
and other endoscopic procedures.

relieves and confines pain
especially valuable postoperatively.
Each package contains an inserter for application.

protective anesthetic dressing for
painful first and second degree burns.

ENDOCRINOLOGY

Test for Hypoglycemia in Endocrine Dysfunction

Adrenal or pituitary insufficiency with Addison's disease or panhypopituitarism is shown by the insulin-glucose tolerance test. With healthy individuals, intravenous administration of 0.1 unit of insulin per kilogram of body weight followed in thirty minutes by oral administration of 0.8 gm. of glucose per kilogram of body weight causes a drop, then a rapid rise in blood sugar, resulting in a peak of hyperglycemia approximately ninety minutes after the insulin injection. Drs. Frank L. Engel and James L. Scott of Duke University, Durham, N.C., find that this same procedure for patients with Addison's disease or hypopituitarism yields a relatively flat curve. The risk involved in the use of this test is considerably less than with the insulin tolerance test, if glucose is administered promptly as soon as the first symptoms of hypoglycemia appear.

J. Clin. Investigation 29:151-160, 1950.

RADIOLOGY

X-Radiation Protection

Cysteine apparently has a protective action for animals exposed to x-rays. The amount of protection is proportional to the amount of the drug given and the x-ray dosage. Although 950 mg. of cysteine per kilogram is the largest dose tolerated by rats, Dr. D. E. Smith and associates of the Argonne National Laboratory, Chicago, have been able to increase this amount by 50% with dual injections given forty-five to sixty minutes apart. With this dosage, all animals survive at an exposure of 1,200 r, which kills all unprotected rats.

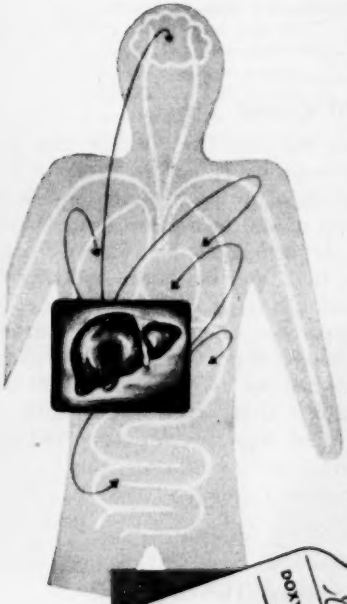
Proc. Soc. Exper. Biol. & Med. 73:198-200, 1950.

► Cyanide appears to give effective protection against lethal doses of x-rays. Dr. Z. M. Bacq and associates of the University of Liége, Belgium, report that 0.1 mg. of sodium cyanide given before irradiation enables 50 to 80% of mice to survive a dosage of 500 to 600 r, amounts of radiation which kill untreated mice.

Science 111:356-357, 1950.

"See what I mean? A doctor might just as well never leave his office."

Looking at the Biliary Tree... not *Over*looking other Structures



The bile acids are expected to drain and flush the biliary tract; to bring help against stasis and cholecystitis. Too, they are looked to for the vital digestion of fats. And perhaps these benefits are enough to expect from one agent. But truth is, the less obvious effects that flow from the bile acids in Doxychol-K may be for some patients of even greater importance.

The high surface activity of Doxychol-K's desoxycholic acid prevents an impenetrable coating of fat around particles of protein and carbohydrates. These other foods are thus exposed to the action of proteolytic and amylotropic enzymes.

On fatty substances insoluble in water, Doxychol-K has a hydrotropic effect. With these it forms choleic acids, stable molecular compounds, which can then pass through the intestinal mucosa to the tissues.

It is by these activities that Doxychol-K administration reaches beyond an impaired gallbladder, to bring better nutriment to far organs.

Doxychol-K

In each Doxychol-K Tablet there are 0.2 Gm. ketocholanic acids derived from oxidized cholic acid. There is also 0.065 Gm. desoxycholic acid, a natural bile acid.

Doxychol-K *is* supplied in bottles of 100, 500, and 1000 tablets.

George A. Breon & Company

KANSAS CITY, MISSOURI
RENSSELAER, N. Y.
ATLANTA
SAN FRANCISCO

EPIDEMIOLOGY

Brucella Studies

A relatively large number of apparently healthy persons may carry *Brucella* agglutinins in the blood. Dr. Wesley W. Spink and Dorothy Anderson of the University of Minnesota, Minneapolis, have found *Brucella* in the blood of more than 19% of the donors to a blood bank. Very few of these individuals had titers as high as 1 to 160, however. Despite the fact that organisms may survive for several months in citrated blood at 4° C., the danger of transmitting the disease by transfusion is slight.

J. Lab. & Clin. Med. 35:440-445, 1950.

CARDIOLOGY

Anastomosis of Heart Cavities

Valvular stenosis has been relieved in dogs by atrioventricular anastomosis. Drs. A. M. Rappaport and A. C. Scott of University of Toronto maintain the proper flow of blood from the atrium to the ventricle by implanting the opened auricular appendage into the ventricular cavity to obtain a valvular action. After the operation, continuous intravenous infusion of heparin is used to prevent thrombosis and complete obstruction of the anastomosis.

Ann. Surg. 131:449-465, 1950.

VITAMINS

Rheumatic Fever Therapy

Large doses of ascorbic acid appear to have some antirheumatic activity. Although the number of patients treated has been too small for definite evaluation, Dr. Benedict F. Massell and associates of Harvard University, Boston, report that daily administration of 4 gm. of ascorbic acid resulted in rapid disappearance of fever and joint symptoms in all of 7 cases. Dosage lasted from eight to twenty-six days. The substance appears to be nontoxic in the amounts used.

New England J. Med. 242:614-615, 1950.

CARDIOLOGY

Cold Pressor Test

An elevated cold pressor test index is probably not an accurate indication of future hypertension. In a group of 166 men, Maj. Gen. Harry G. Armstrong, U.S.A.F., Washington, D.C., and Dr. James A. Rafferty, Randolph Field, Tex., found only 6 hyperreactors—persons with indexes of more than 20. None of these men had an excessive rise in blood pressure after seven years, while 3 cases of hypertension appeared in other members of the group.

Am. Heart J. 39:484-490, 1950.

ENDOCRINOLOGY

Testicular Deficiency

In the healthy male, 2 types of testicular hormones are apparently present, one made by the Leydig cells and the other by the tubules. Dr. R. Palmer Howard and associates of Harvard University, Boston, believe that this second or "X" hormone, which is probably made by the Sertoli rather than the germ cells, supports spermatogenesis, inhibits the production of follicle-stimulating hormone, and stimulates other gonadotropins.

J. Clin. Endocrinol. 10:121-186, 1950.

Digestive Trouble-Shooter with "peptomatic" action*

Faced with complex digestive disturbances so frequently therapy-elusive, more and more physicians are utilizing Entozyme's highly effective triple-enzyme digestional aid in small-tablet form. Actually, a "tablet-within-a-tablet" (containing pancreatin, pepsin and bile salts), the secret of Entozyme's success lies in its unique "peptomatic" action*, which selectively deposits each digestive ferment at its proper gastro-intestinal level, in its optimal state of enzymatic activity. Entozyme's value has been well established clinically [1,2,3] in such conditions as chronic cholecystitis, chronic duodenal ulcer, acute and chronic pancreatitis and certain postoperative syndromes of the gastro-intestinal tract, as well as for the relief of functional disturbances such as nausea, pyrosis, belching, and flatulence.

*A coined word to describe the unique action of the Entozyme Tablet which releases pepsin only in the stomach, and pancreatin and bile salts only in the small intestine.

A. H. ROBINS CO., INC., RICHMOND 20, VA.
Ethical Pharmaceuticals of Merit since 1878

Formula: Each specially constructed tablet contains Pancreatin, U.S.P., 300 mg.; Pepsin, N.F., 250 mg.; Bile Salts, 150 mg.

Dosage: One or two tablets after each meal, or as directed by physician, without crushing or chewing.

Supplied: Bottles of 25 and 100.

References: 1. Kammandel, N. et al.: Bull. New York Med. Coll., Flower & Fifth Ave. Hosps., (in press). 2. McGovack, T. H. and Klotz, S. D.: Bull. Flower & Fifth Ave. Hosp., 9:61, 1946. 3. Weisberg, J., McGovack, T. H. and Boyd, Lino J.: Am. Dig. Dis., 15:232, 1948.

Entozyme®

for comprehensive digestional aid in tablet form

PEDIATRICS

ACTH in Poliomyelitis

Administration of pituitary adrenocorticotropic hormone after the onset of poliomyelitis symptoms appears to have no effect on the course of the disease. Dr. Lewis L. Coriell of University of Pennsylvania, Philadelphia, and associates believe that the low initial eosinophil count which gradually rises to high levels is an indication that the disease mobilizes an alarm reaction. Results were assessed for 70 patients with poliomyelitis, 35 of whom received the hormonal therapy. ACTH appeared to further depress the eosinophil count and to increase the excretion of 17-ketosteroids, but temperature, occurrence and progression of paralysis, and early residual effects were not appreciably affected.

J.A.M.A. 142:1279-1281, 1950.

OBSTETRICS

Clay and Starch Eating

Consumption of clay and laundry starch appears to be a common custom among pregnant women of the lower economic classes in the South. The only explanation seems to be that they like the taste. Of 361 patients, mostly Negroes, in rural Mississippi, 25% admitted eating clay; 39% ate starch. Since these women are often secretive about the practice, Dr. James H. Ferguson of Tulane University, New Orleans, and Alice Glenn Keaton of the Mississippi State Board of Health, Jackson, believe that the number who partake may be even higher. No correlation can be found between the quality of the diet and clay-eating, nor does the habit appear to produce any ill effects.

New Orleans M. & S. J. 102:460-463, 1950.

Chemically Standardized Veratrum Viride Is Effective in Hypertension

Much has been written pro and con about the value of veratrum viride in hypertension. For many years the drug has been in disrepute because of the fact that the preparations available on the market have been prepared by "hit or miss" methods.

Chemical standardization of veratrum viride, however, has provided in this drug a highly effective agent for the treatment of hypertensive patients.

Sollmann[1] states that veratrum is probably the most active and reliable cardiac depressant and that its use serves to slow and soften the pulse and lower the blood pressure.

Willson & Smith[2] state that veratrum viride possesses a vasodilating effect and because of this, it was demonstrated by Hite,[3] and Freis and Stanton,[4] that the drug lowered pressure in hypertension and gave symptomatic relief. Recent research tends to show that the decrease in blood pressure results more from peripheral vasodilation than from depression of cardiac output.

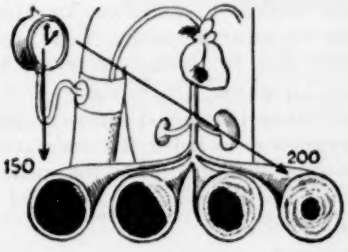
Uniformity of Action

When the veratrum alkaloids are chemically standardized, a uniform result can be expected. Their action usually causes a reflex fall in blood pressure and heart rate which originates in the afferent vagus nerve endings in the myocardium of the left ventricle and in the lungs. Although these factors ordinarily result with each heart beat, the veratrum alkaloids cause them to act continuously over prolonged periods of time. Reports have shown that 80 to 90 per cent of hypertensive patients respond to therapy when chemically standardized veratrum viride is used.

Cardio-Vascular Symptoms Cleared

In addition to the lowered pressure, objective signs of improvement may be observed, such as the clearing of retinal hemorrhages, diminution in cardiac size and reversal of left ventricular strain patterns in electrocardiograms.

Accompanying symptoms of the cardiac-hypertension syndrome, such as exertional dyspnea, tachycardia, nervous irritability, headache, are relieved. Yet, while the results of veratrum viride medication are prolonged, the drug may not afford quick relief.



Role of the Nitrites

For prompt and effective fall in blood pressure, nitroglycerin, which acts in one to two minutes, is the drug of choice. It acts rapidly and, because of its powerful vasodilatory action, gives the patient almost immediate relief. The action of nitroglycerin, however, is fleeting and to sustain lowered pressure between the action of nitroglycerin and veratrum viride, an intermediate is necessary.

To this end, sodium nitrite is used. This drug is also a vasodilator and affords sustaining relief until the long range action of chemically standardized veratrum viride becomes effective.

Importance of Sedation

Nearly all cases of hypertension require sedation for allaying periods of anxiety and affording the patient a good night's rest. Mild sedation is often useful, especially in cases associated with chronic coronary insufficiency.[5] It is well known that excitement may induce anginal attacks and in such cases, phenobarbital, because of its prolonged action, should be used.

All of these drugs, chemically standardized veratrum viride, nitroglycerin, sodium nitrite, and phenobarbital are to be found in Capsules RAY-TROTE IMPROVED, prepared by the Raymer Pharmacal Company of Philadelphia, Pa. Each capsule contains

Phenobarbital	15 mg.
Sodium Nitrite	30 mg.
Nitroglycerin	0.25 mg.

With the equivalent of Veratrum Viride Tincture 4 minims (containing 0.1% alkaloids)

RAY-TROTE IMPROVED is effective in dosages of one capsule every three hours. It is contraindicated when renal insufficiency is present, or if pulse becomes abnormally slow following treatment.

For the 30% of hypertensive patients with capillary fault, the above formula, with 20 mg. of Rutin added, is available in RAY-TROTE with Rutin.

Bibliography

1. Sollmann: A Manual of Pharmacology, W. B. Saunders Co. (1942).
2. Willson & Smith: J. Pharmacol., 79:208 (1943).
3. Hite: Ill. M. J., 90:336 (1946).
4. Freis & Stanton: Am. Heart J., 36:723 (1948).
5. Falk: South. M. J., 40:501 (1947).

Send for a liberal clinical supply of RAY-TROTE IMPROVED Capsules and descriptive literature today to Raymer Pharmacal Company, N.E. Cor. Jasper and Willard Streets, Philadelphia 34, Pa.

(Advertisement)

DIAGNOSIS

Atherosclerosis Detection

The presence of cholesterol-bearing blood components with a high flotation rate may indicate existing or impending atherosclerosis. After discovery of such components in rabbits with cholesterol-induced atherosclerosis, Dr. John W. Gofman and associates of University of California, Berkeley, began an investigation of low-density molecules in human beings. The incidence of measurable concentrations of molecules with a flotation rate of 10 to 20 Svedberg units is low in persons below forty years of age without known disease, but is somewhat higher in the male than in the female members of this group. Concentration of these molecules is greater in older persons and the differential between the sexes is less. Diabetic patients, who are known to be highly susceptible to atherosclerosis, have a still higher incidence, and 101 out of 104 patients with myocardial infarction had a measurable concentration of the low-density molecules. These facts may help to explain conflicting evidence about the relationship of serum cholesterol levels to atherosclerosis. The incidence of the low-density molecules tends to be greater in sera with a cholesterol level above 20 mg. per cent, but high concentrations are found with lower cholesterol levels.

Science 111:166-171, 186, 1950.

AWARDS

Guggenheim Fellowships

The John Simon Guggenheim Memorial Foundation has recently announced eleven fellowship awards in the fields of medicine, neurology, and biochemistry. Recipients and their respective fields of study include Drs. F. H. L. Taylor, Boston City Hospital, biochemical approaches to medicine; Richard W. Lippman, Cedars of Lebanon Hospital, Los Angeles, and Hans Handforth Zinsser, University of Pennsylvania, renal diseases; M. C. Terry, Palo Alto, Calif., association of taste-blindness and diabetes in the Negro; Stephen Polyak, University of Chicago, structure, function, and brain connections of the eyes; Gerhardt von Bonin, University of Illinois, Chicago, electronic cell counter for study of cerebral cortex; Ernest Borek, City College, New York City, effect of temperature on utilization of carbon dioxide by microorganisms; Kenneth V. Thimann, Harvard University, Boston, physiology of microorganisms; and Robert E. Hungate, Washington State College, Pullman, nutrition of ruminants.

HONORS

American Physicians Meeting

Dr. Hugh J. Morgan of Vanderbilt University, Nashville, was elected president of the Association of American Physicians at the sixty-third annual meeting. He succeeded Dr. Alphone R. Dochez of Columbia University, New York City. Dr. O. H. Robertson of Stanford University was named vice-president, Dr. Henry M. Thomas, Jr., of Baltimore, secretary, and Dr. Walter Bauer of Boston, treasurer. Dr. Edwards A. Park of Johns Hopkins University, Baltimore, was awarded the association's George M. Kober medal for outstanding contributions in the field of medicine.

why let healing drag on and on and on . . .

in **BURNS**

slow healing **WOUNDS**

ULCERS

(decubitus, varicose, diabetic)

renew vitality of sluggish cells

stimulate healthy granulation

accelerate smooth epithelization[1] *with*

Desitin®

OINTMENT

the external cod liver oil therapy

PROTECTIVE • SOOTHING • HEALING

℞ **Desitin Ointment is a stable blend of crude cod liver oil (with unsaturated fatty acids and vitamins A and D in proper ratio for maximum efficacy), zinc oxide, talcum, petrolatum, and lanolin. Minimizes scarring; dressings easily applied and painlessly removed. Tubes of 1 oz., 2 oz., 4 oz., and 1 lb. jars.**

Send for SAMPLES and new clinical reprint

Desitin CHEMICAL COMPANY

70 Ship Street, Providence, R. I.

1. Behrman, H. T., Combes, F. C., Bobroff, A., and Leviticus, R.: Industrial Med. & Surg. 18:512, 1949.

PEDIATRICS

Cause of Leiner's Disease

A lack of biotin in the mother's milk may be responsible for the development of desquamative erythroderma among breastfed children. The condition may also be aggravated by secondary infection. Drs. J. Svejcar and J. Homolka of the First Children's Clinic, Prague, find that severe generalized disease which increases the need for the vitamin may produce Leiner's disease in artificially fed children. Biotin therapy is effective for Leiner's disease of either the breast- or artificially-fed child, but a longer period of time and greater dosage are required for the former.

Ann. Paediat. 174:173-193, 1950.

EXPERIMENTAL MEDICINE

Protection Against Diabetes

Prolonged administration of diethylstilbestrol appears to protect rats against diabetes. Dr. Ricardo D. Rodriguez of the Instituto de Biología y Medicina Experimental, Buenos Aires, observed this effect in partially pancreatectomized animals maintained with forced feedings. Daily injections of lactose and 5 μg. of stilbestrol caused a temporary rise in glycosuria values and blood sugar levels for about a month, after which initial values returned even while stilbestrol treatment was continued. In contrast, diabetes developed in rats similarly treated, but not given stilbestrol.

Proc. Soc. Exper. Biol. & Med. 73:317-321, 1950.

A LAXATIVE FOR THERAPY

because

of its

Broad Clinical Acceptance

Phospho-Soda (Fleet) wide acceptance by physicians everywhere is a tribute to its prompt, gentle laxative action thorough, but free from disturbing side effects. Leading modern clinicians attest its safety and dependability as a pre-eminent saline eliminant for judicious relief of constipation. Liberal office samples on request.

C. B. FLEET CO., INC. • LYNCHBURG, VIRGINIA

"So you had Doctor Smith who died, Doctor Doaker who died, and Doctor Jones who died, and now you ask me to take your case?"

Life's Weary Moments

Think of a gag that fits the illustration. For every issue a new gag is published and the author is sent $5. The June 15 winner is

John G. Hand, M.D.
Philadelphia

Mail your caption to The Cartoon Editor
Caption Contest
No. 1
MODERN MEDICINE
84 South 10th St.
Minneapolis 3, Minn.

Notice the firm, sloping shoulder and the short tip of Davol Anti-Colic* brand Nipples. For in making them Davol follows the perfect pattern set by Mother Nature herself.

This near-to-nature construction gives Baby the same sucking action that occurs in breast feeding. What's more, Davol "Anti-Colic" Nipples encourage infants to complete the ideal twenty-minute "nursing" sessions.

the nipple that's nearest to nature

Added Convenience:

These famous nipples are made in two styles —the "Sani-Tab" for narrow-neck bottles; the Dual-Purpose† for either the narrow-neck or the nurser type.

DAVOL **RUBBER COMPANY**
Providence 2, Rhode Island

*T. M. Reg. U. S. Pat. Off.
†Registration applied for

Washington Letter

Public Health Service Reports Progress Against Tuberculosis

The detailed, state-by-state story of success in controlling tuberculosis is told by U. S. Public Health Service in its annual survey on the subject.

The facts are encouraging: Death rates are decreasing for both white and nonwhite populations, for males and females, with one exception. Since 1941, death rates for all males over sixty-five years of age have shown small but consistent increases. PHS makes no attempt to explain these isolated increases, but the assumption may be that an increasing number of men with tuberculosis now live past sixty-five.

Over the last few years, deaths per 100,000 of population have decreased this way: The 1946 rate was 5% lower than that for 1945; the 1947 rate, 7% lower than 1946; the 1948 rate, the last included in the tabulation, was 30 per 100,000, or 10% lower than 1947. A sampling of 10% of the death certificates for 1949 indicates that last year's tuberculosis death rate also showed a decline.

"Of course it's an emergency call, doctor. He's been sick all week!"

U. S. Public Health Service, which has made similar annual studies for twenty-one years, says:

The change in the pattern of the age-specific death rates for respiratory tuberculosis has been the most prominent feature of the mortality from this disease. As a result of the more rapid decline in the rates at the younger ages, tuberculosis has changed from a disease whose greatest toll was in young adults, to one for which the death rate increases with age.

in itching, irritative skin conditions... to soothe, protect, aid healing... stop scratching... reduce risk of infection

enzo-cal®

the original anesthetic calamine cream

Skilfully combining near-colloidal calamine and zinc oxide with benzocaine for prompt, effective, antipruritic action, this greaseless, flesh-colored cream, with faint rose odor, is like a fine cosmetic cream. Patients, doctors and doctors' wives say it is

"so pleasant to use"

Specify ENZO-CAL in ECZEMA, DIAPER RASH, PRURITUS VULVAE, PRURITUS ANI, INTERTRIGO, EXANTHEMS.
Available in 1½ oz. tubes and 1 lb. jars.

send for free full-size package for trial today

Crookes

MM

CROOKES LABORATORIES, INC., 305 E. 45 Street, New York 17, N. Y.
Please send me a market package of ENZO-CAL, and literature, without charge.

Name_____ M.D., Address_____

The age group with the highest mortality now is 25 to 34 for all classifications except nonwhite females, among whom the most deaths occur between the ages of fifteen to twenty-four, which still represents a higher age for peak mortality than the last survey.

Public Health Service says that the great decline in respiratory tuberculosis mortality has been shared by almost all age groups, although the largest percentage decrease has taken place among children under the age of fifteen.

Nonrespiratory tuberculosis deaths show a consistent decrease in relation to the respiratory tuberculosis deaths.

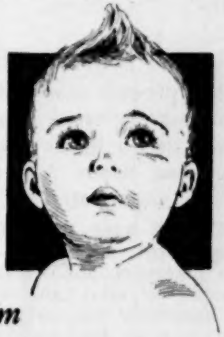
On this the PHS reports: "The death rate for tuberculosis of the respiratory system has dropped from a maximum of 134.2 per 100,000 of population in 1911 to a minimum of 27.7 in 1948. In this same period, the rate for nonrespiratory forms has declined from a maximum of 20.9 in 1911 to a minimum of 2.3 in 1948."

By states, Arizona continues to have the highest rate, 82.4 per 100,000. PHS does not explain that Arizona's climate attracts a high percentage of patients with tuberculosis, but the report gives this state separate consideration. Rates for other states range from 9.5 for Iowa to 53.1 for New Mexico.

The report (*Public Health Reports*, vol. 65, no. 14.) was written by Lil-

Baby gets a fine start!

This complete choice meets normal dietary needs!



DOCTOR, as soon as it is time to feed solids, you can advise a mother to start her baby on Beech-Nut Cereal and follow with Beech-Nut Strained Foods and Junior Foods. No foods can give your young patients higher quality or finer flavor.

Babies love them—thrive on them

Beech-Nut

FOODS *for* BABIES

Beech-Nut high standards of production and ALL ADVERTISING have been accepted by the Council on Foods and Nutrition of the American Medical Association.

lian Guralnick and Stanley Glaser. It may be obtained from PHS as long as the supply lasts, then from Superintendent of Documents, Government Printing Office, Washington 25, D.C.

VA and Military Hospitals

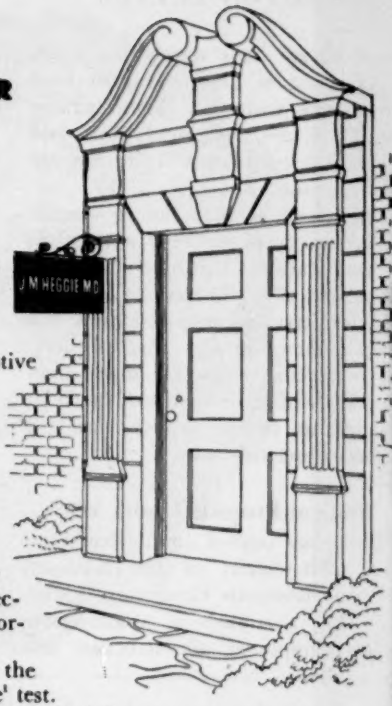
While pressure mounts in Congress to force the Veterans Administration to take over military hospitals now being shut down, VA makes this unofficial argument:

We don't want the hospitals; they are inefficient; they would require too much personnel, and we can't get the personnel we need now; we have our own long-range hospital building program which we don't want to interrupt.

Also, VA doesn't want the addi-

"Sleeping pills? Ear plugs? Insomnia aids?"

BEHIND THIS DOOR



. . . is the man who merits the confidence of millions of married women seeking advice about contraception. For the doctor this is a grave responsibility. The finality of pregnancy brooks no hit or miss preventive measures. When childbearing is contraindicated, only an effective means of contraception can be considered. This explains the widespread professional acceptance of Lanteen contraceptive products.

The diaphragm and jelly method of contraception, which comprises the Lanteen Technique, is accepted by leading authorities as one of the safest and most effective means of preventing conception. The Lanteen Diaphragm, made of the finest rubber and watch spring steel, is scientifically designed for complete comfort and dependable protection. Lanteen Jelly, containing hexylresorcinol, has been proven spermatocidal in the shortest time interval recorded in the officially recognized Becker and Gamble[1] test. Despite this potent sperm-destroying action, the jelly is actually soothing to sensitive membranes.

Both the Lanteen Diaphragm and Lanteen Jelly are accepted by the Council on Physical Medicine and the Council on Pharmacy and Chemistry of the American Medical Association, respectively.

Lanteen Jelly contains: Ricinoleic Acid, 0.50%; Hexylresorcinol, 0.10%; Chlorothymol, 0.0077%; Sodium Benzoate and Glycerine in a Tragacanth base.

1. Becker, B., and Gamble, C. J.: The Spermicidal Times of Contraceptive Jellies and Creams, Human Fertility, *11*:111 (Dec.) 1946.

Write for literature describing the Lanteen Method of Contraception.

The Lanteen Diaphragm and Lanteen Jelly are accepted by the Council on Physical Medicine and the Council on Pharmacy and Chemistry of the American Medical Association, respectively.

Lanteen

MEDICAL LABORATORIES, INC.

2020 GREENWOOD STREET

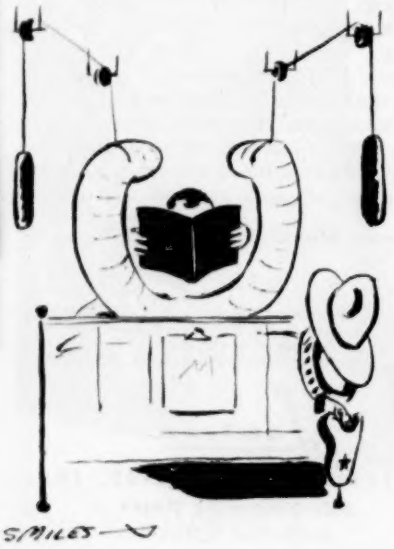
EVANSTON, ILLINOIS

tional 16,000 beds which one block in Congress is determined to load the agency with. VA Administrator Carl Gray says, "We never have and never will turn away a service-connected case."

The point is that the movement for the extra 16,000 beds is political in implication. If these beds are authorized, VA will have to fill them with non-service connected cases. VA officials complain now that non-service connected cases fill more than two-thirds of their beds and make it difficult to insure proper care for service-connected cases.

Medical Projects Under Way

Work has started on the basement and subbasement of the National Medical Research Center at Bethesda, Md., a suburb of Washington. When completed, the structure will be fourteen stories, including 500 beds for research purposes and extensive laboratory equipment. Separate units are planned for work on mental health, cancer, heart diseases, and biologic and microbiologic studies.



Not far away, at the Army's Walter Reed Medical Center, surveying is under way for the new Armed Forces Institute of Pathology. Congress has authorized expenditure of $350,000 for planning and preliminary work. Final cost of the new institute is expected to be around $10,000,000.

Cortisone, ACTH Still Restricted

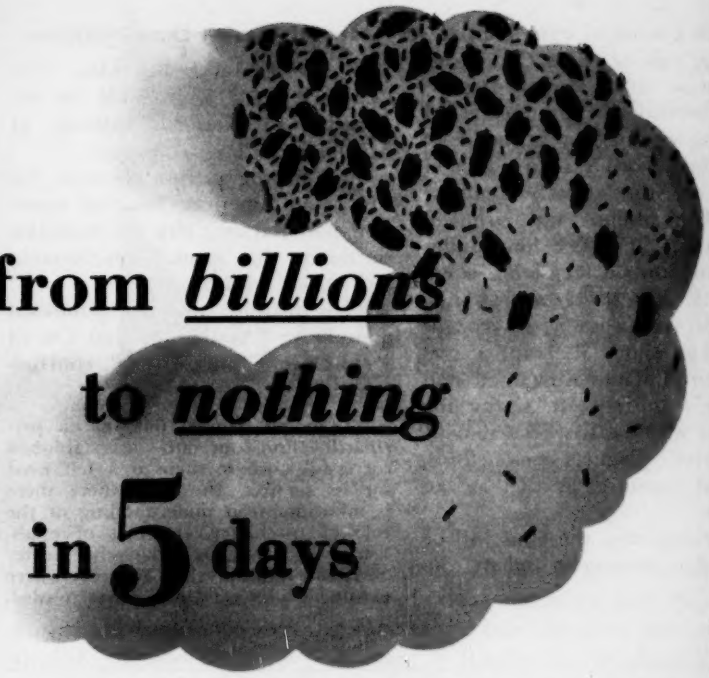
Despite sharp increases in production and drop in costs, cortisone and ACTH will not be released for general use at any time in the near future. Food and Drug Administration is not satisfied that enough is known of the drugs' side effects to make them safe preparations, except in the experimental field.

Doctors Wanted for Pacific

With the Navy surrendering jurisdiction to Department of the Interior, positions are opening up for physicians on the U.S.-mandated Pacific Islands. Salaries range from $6,400 to $8,800, with a 25% increase for overseas service. Full information may be obtained from Division of Territories and Island Possessions, of the Interior Department, Washington 25, D.C.

Carrier-Rat in Movie

The Public Health Service Communicable Disease Center, Atlanta, is



from *billions* to *nothing* in 5 days

Billions of organisms inhabiting the normal intestinal tract can be completely eliminated in about five days with THALAMYD,® the new enteric sulfonamide.[1] This ability of THALAMYD to sterilize the gut has great significance in the preoperative preparation of patients for elective intestinal surgery as the drug is not absorbed into the blood stream in appreciable amounts. It is, therefore, nontoxic.

In specific dysenteries caused by Shigella and other susceptible pathogens, THALAMYD is also powerfully antibacterial, acting against organisms within the bowel wall.

In chronic ulcerative colitis, THALAMYD is indicated for eliminating secondary bacterial invaders which often prevent or delay healing.[2]

THALAMYD

(Phthalylsulfacetimide)

THALAMYD Tablets containing 0.5 Gm. (7.7 gr.) of phthalylsulfacetimide per tablet. Bottles of 100 and 1000 tablets.

(1) Henderson, E., and Seneca, H.: Am. J. Digest. Dis. *16*:372, 1949.
(2) Heinecken, T. S., and Seneca, H.: Rev. Gastroenterol. *15*:611, 1948.

Schering CORPORATION · BLOOMFIELD, NEW JERSEY

working on a series of seven films, depicting the role of the rat as a carrier of disease. Army Medical Department is assisting in production of the moving pictures.

More than 2,000 rats of common varieties are the actors, assembled from garbage dumps and farms of south Georgia. The first film, under production now on an island, is entitled "The Rat Problem." It summarizes the seriousness of the rodent problem and shows the captive rats engaged in contaminating food and destroying property. It traces the manner in which rats spread murine typhus fever, plague, salmonellosis, leptospiral jaundice, as well as ratbite fever.

When completed, the films will be available for training in rodent control.

Mental Health Developments

A new mental health film, "Preface to a Life," is available for distribution by National Institute of Mental Health.

The moving picture concerns the life of an American boy and shows how parental attitudes can stimulate or distort his mental development and social adjustment.

The Institute also has published a study on "Availability and Use of Psychiatric Clinics, 1947," concluding:

> It may be pointed out that a psychiatric clinic can only be established successfully where there is a felt need for its services. In areas where there is no widespread understanding of the role of psychiatry, the cost of establishing a clinic is relatively greater and more difficult than in areas where existing clinics are already overcrowded.

Doctor to Doctor

Think of a gag that fits the illustration. For every issue a new gag is published and the author is sent $5. The June 15 winner is

Professional Humorist
New York City

Mail your caption to
The Cartoon Editor
Caption Contest
No. 2
MODERN MEDICINE
84 South 10th St.
Minneapolis 3, Minn.

"You look terrible. You should analyze yourself if you think you can afford the fee."

*"The minor and major, overt and hidden, temporary and continuing effects on the human body and mind of insufficiency of iodine in the diet . . ."**

ORGANIDIN®

A Demonstrably Superior Iodine Preparation For Internal Use

Recent editorial comment* emphasizes the importance of providing enough iodine in the diet, citing endemic iodine deficiency and trade experience showing substantial loss of iodine from table salt during transportation and storage. A long-range program is recommended to make fully potent iodized table salt universally available to the exclusion of the noniodized variety.

Elevation of blood pressure, with nervous excitement, sleeplessness, tremor and tachycardia may be induced, at least in part, through marginal, often unrecognized deficiencies of iodine. In such conditions empiric administration of iodine may prove beneficial. And in frank hyperthyroidism, iodine therapy is of course definitely indicated.

Organidin (Wampole) is an exceptionally well tolerated, unique preparation of iodine organically combined by reaction with glycerin for internal administration, entirely free of inorganic iodides, negative to starch test solution, and standardized to contain 2.5 Gm. of iodine per 100 cc. Bottles of 30 cc. with dropper (1 minim per drop). *Samples and literature on request.*

*Editorial Comment: N.Y. State J. Med. :2770, 1949.

HENRY K. WAMPOLE & CO., INCORPORATED
Manufacturing Pharmacists Since 1872
PHILADELPHIA 23, PA.

Current Books & Pamphlets

This catalogue is compiled from all available sources, American and foreign, to insure a complete listing of the month's releases.

Medicine

THROMBOSIS IN ARTERIOSCLEROSIS OF THE LOWER EXTREMITIES *by* Edward A. Edwards. 83 pp., ill. Charles C Thomas, Springfield, Ill. $2

SCHILDDRÜSE UND BASEDOW *by* Wilhelm Eickhoff. 125 pp. Georg Thieme, Stuttgart. 10.80 M.

PROGRESS IN CLINICAL ENDOCRINOLOGY *by* Samuel Soskin. 641 pp., ill. Grune & Stratton, New York City. $10

Obstetrics & Gynecology

DIAGNOSIS AND THERAPY OF GYNECOLOGICAL ENDOCRINE DISORDERS *by* Charles L. Buxton *and* Earl T. Engle. 63 pp. Charles C Thomas, Springfield, Ill. $2

TECHNIQUES OF CONCEPTION CONTROL *by* Robert Latou Dickinson. 3d ed. 59 pp., ill. Planned Parenthood Federation of America, 501 Madison Ave., New York City. Apply

LEHRBUCH DER GEBURTSHILFE FÜR HEBAMMEN *by* Hans Heidler. 363 pp., ill. Wilhelm Maudrich, Vienna. 45 M.

MEDICAL GYNECOLOGY *by* James C. Janney. 2d ed. 454 pp., ill. W. B. Saunders Co., Philadelphia. $6.50

Dermatology

LES HÉMATODERMIES *by* P. de Graciansky *and* André Paraf. 210 pp. Masson & Co., Paris. 850 fr.

Physiology

PHYSIOLOGY OF THE NERVOUS SYSTEM *by* John Farquhar Fulton. 3d ed. 677 pp., ill. Oxford University Press, New York City. $10

RECENT ADVANCES IN THE PHYSIOLOGY OF VISION *by* Hamilton Hartridge. 414 pp., ill. J. & A. Churchill, London. 25s.

Roentgenology

LE DIAGNOSTIC BIO-CLINIQUE EN RADIOLOGIE PULMONAIRE *by* Georges Voluter. 452 pp., ill. S. Karger, Basel, Switzerland. 40 Sw. fr.

Industrial Medicine

INDUSTRIAL HYGIENE AND TOXICOLOGY: VOLUME II *edited by* Frank A. Patty. 1,138 pp. Interscience Publishers, New York City. $15

INDUSTRIAL MICROBIOLOGY *by* Samuel Cate Prescott *and* Cecil Gordon Dunn. 2d ed. 923 pp., ill. McGraw-Hill Book Co., New York City. $8.50

INDUSTRIAL NUTRITION *by* Magnus Pyke. 212 pp. Macdonald & Evans, London. 10s.

Neurology & Psychiatry

SELECTIVE PARTIAL ABLATION OF THE FRONTAL CORTEX: A CORRELATIVE STUDY OF ITS EFFECTS ON HUMAN PSYCHOTIC SUBJECTS *by* Columbia Greystone Associates; *edited by* Fred A. Mettler. 517 pp. Paul B. Hoeber, Inc., New York City. $10

EXTERNAL MORPHOLOGY OF THE PRIMATE BRAIN *by* Cornelius Joseph Connolly. 378 pp., ill. Charles C Thomas, Springfield, Ill. $10

Allied Sciences

MICROBIOLOGY *by* Florene C. Kelly *and* K. Eileen Hite. 592 pp., ill. Appleton-Century-Crofts, New York City. $6.50

MEDICAL ENTOMOLOGY *by* Robert Matheson. 2d ed. 612 pp., ill. Comstock Publishing Co., Ithaca, N.Y. $7.50

ADVANCES IN CARBOHYDRATE CHEMISTRY: VOLUME IV, 1949 *edited by* William Ward Pigman *and* M. L. Wolfrom. 378 pp., ill. Academic Press, New York City. $7.80

Carnation Gives You Uniform Control in all 3 Feeding Stages

1. BABY'S FORMULA

You can prescribe the combination of milk, water and carbohydrates that fits each baby's individual needs—secure in the knowledge that Carnation Evaporated Milk *never varies*. And you know it is absolutely safe. For it is not only pasteurized, but sterilized *after* the airtight can is sealed. There are no "unknowns" in the formula to cause complications at this critical stage of the infant's life.

2. POST-FORMULA FEEDING

Delicate little digestive systems are still easily upset after baby goes off formula, so Carnation's absolute uniformity continues to be an important safeguard. And Carnation diluted with an equal amount of water is nourishing whole milk in its most digestible form. For Carnation is homogenized and heat-refined—is *soft-curd* milk that the baby can readily assimilate.

3. CUP-DRINKING

Here's an important plus all doctors (and mothers!) appreciate: When *familiar-tasting* Carnation is used in the cup, baby makes the radical change-over from bottle-feeding with far less resistance. Here again, Carnation's constant uniformity in butterfat, milk solid content, curd tension, and viscosity is a positive factor in eliminating the possibility of digestive upsets.

Complete Control—that's the secret of Carnation's absolute uniformity. Every drop comes from cows checked by Carnation's own inspectors ...is tested in Carnation's own receiving stations...is pasteurized and processed with prescription accuracy in Carnation's own evaporating plants. There is no finer, safer milk for babies...none that gives you better control over all three stages of baby's feeding. When you recommend Carnation *by name*, you specify the milk that has been a standard among doctors for over half a century.

8 out of 10 mothers raising their babies on Carnation report that it was recommended by their doctor

The Milk Every Doctor Knows

"From Contented Cows"

Pediatrics

INFANT NUTRITION: ITS PHYSIOLOGICAL BASIS *by* F. W. Clements. 254 pp. John Wright & Sons, Bristol, England. 21s.

MITCHELL-NELSON'S TEXTBOOK OF PEDIATRICS *edited by* Waldo E. Nelson. 5th ed. 1,658 pp., ill. W. B. Saunders Co., Philadelphia. $12.50

Physical Medicine

MOBILIZATION OF THE HUMAN BODY: NEWER CONCEPTS IN BODY MECHANICS *by* Harvey E. Billig, Jr., *and* Evelyn Loewendahl. 65 pp., ill. Stanford University Press, Stanford, Calif. $2

APPLIED ANATOMY AND KINESIOLOGY: THE MECHANISM OF MUSCULAR MOVEMENT *by* Wilbur Pardon Bowen. 6th ed. 390 pp., ill. Lea & Febiger, Philadelphia. $4.75

ÉTUDE SÉMIOLOGIQUE DU TONUS MUSCULAIRE *by* André Thomas *and* J. de Ajuriaguerra. 844 pp. Editions Médicales Flammarion, Paris. 2,000 fr.

THE KINESIOLOGY OF CORRECTIVE EXERCISES *by* Gertrude Hawley. 2d ed. 192 pp., ill. Lea & Febiger, Philadelphia. $3.75

Theropeutics

CURRENT THERAPY 1950 *edited by* Howard F. Conn. 736 pp. W. B. Saunders Co., Philadelphia. $10

PENICILLIN: ITS PRACTICAL APPLICATION *edited by* Sir Alexander Fleming. 2d ed. 471 pp., ill. Butterworth & Co., London. 30s.

QUINIDINE IN DISORDERS OF THE HEART *by* Harry Gold. 115 pp. Paul B. Hoeber, Inc., New York City. $2

STREPTOMYCIN UND DIE BEHANDLUNG HAEMATOGENER TUBERKULOSEFORMEN *by* Otto Ruziczka. 179 pp., ill. Springer, Vienna. 16 M.

Urology

UROLOGICAL SURGERY *by* Austin I. Dodson. 2d ed. 855 pp., ill. C. V. Mosby Co., St. Louis. $13.50

Alcoholism

ALCOHOL AND SOCIAL RESPONSIBILITY *by* Raymond G. McCarthy *and* Edgar M. Douglass. 304 pp. Thomas Y. Crowell Co., New York City. $3.50

DRINKING'S NOT THE PROBLEM *by* Charles Clapp. 179 pp. Thomas Y. Crowell Co., New York City. $2.50

Biography

DOCTOR TOM BROWN: MEMORIES *by* Jeannie Albert Brown. 103 pp., ill. Richard R. Smith, New York City. $2.50

LOUIS PASTEUR, FREE LANCE OF SCIENCE *by* René J. Dubos. 418 pp. Little, Brown & Co., Boston. $5

Medical History

AN INTRODUCTION TO THE STUDY OF EXPERIMENTAL MEDICINE *by* Claude Bernard; *translated by* Henry Copley Greene. 226 pp., ill. Henry Schuman, New York City. $3

ABRAHAM LEVINSON ANNIVERSARY VOLUME: STUDIES IN PEDIATRICS AND MEDICAL HISTORY *edited by* Solomon R. Kagan. 365 pp., ill. Froben Press, New York City. $6

THE MIDDLESEX HOSPITAL, 1745-1948 *by* Hilary St. George Saunders. 108 pp., ill. Max Parrish & Co., London. 8s. 6d.

HUANG TI NEI CHING SU WÊN: THE YELLOW EMPEROR'S CLASSIC OF INTERNAL MEDICINE *translated by* Ilza Veith. 253 pp., ill. Williams & Wilkins Co., Baltimore. $5

Occupational Therapy

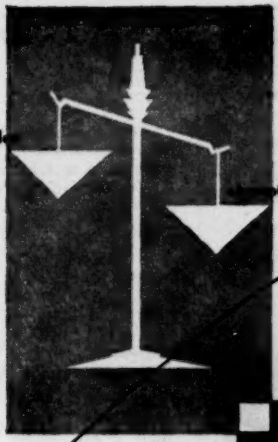
OCCUPATIONAL THERAPY: PRINCIPLES AND PRACTICE *edited by* William R. Dunton *and* Sidney H. Licht. 321 pp., ill. Charles C Thomas, Springfield, Ill. $6

Miscellaneous

DIRECTORY OF BIOLOGICAL LABORATORIES. 4th ed. 140 pp. Burns Compiling and Research Organization, Chicago. $3

MEDICAL STATE BOARD QUESTIONS AND ANSWERS *compiled by* R. Max Goepp *and* Harrison F. Flippin. 8th ed. 663 pp. W. B. Saunders Co., Philadelphia. $7

THE DOCTOR'S PROFESSION *edited by* Daniel Thomas Jenkins. 128 pp. Student Christian Movement Press, London. 4s. 6d.



so adequate

There's a wide safety margin between the amount of menstrual flow* and the absorptive capacity of TAMPAX tampons—a fact strongly substantiated by the purchase of more than two billion TAMPAX in the past twelve years. The comfort and convenience of the three absorbencies of these dainty intravaginal cotton guards (with individual applicators) are also strongly appealing.

*Am. J. Obst. & Gyn., 31:979, 1936.

TAMPAX INCORPORATED · PALMER, MASS.

ACCEPTED FOR ADVERTISING BY THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

TAMPAX

the internal menstrual guard of choice

Your request will bring professional samples promptly.

MM-15-60

PATIENTS . . . I Have Met

The editors will pay $1 for each story published. No contributions will be returned. Send your experiences to the Patients I Have Met Editor, MODERN MEDICINE, 84 South Tenth St., Minneapolis 3, Minn.

New Model

A former nurse, now a housewife, had come into the office with a minor complaint.

"Do you have S.T. 37?" I asked.

Quick as a flash her five-year-old daughter replied, "Oh, no. We have a 1950 Ford."—E.W.

Had to Take It

Jones appeared at my office door, badly carved up with a razor. After I had tended his wound I said, "Jones, why don't you keep out of bad company?"

"I'd like to boss," he said, "but I ain't got me enough money for a divorce."—W.J.B.

"Sure, twenty-five a week is all right to start—but if I ever decide to marry you, I'll expect considerably more."

Does it matter if you're comfortable?

OF COURSE the surgeons' gloves you wear must be tissue-thin so that your sensitive touch is not impeded. And they must be strong to give you the protection and the service life you require. But what about comfort?

B. F. Goodrich "Miller" brand surgeons' gloves are designed to give you maximum comfort . . . bare hand comfort. Backs are full for free action. Fingers are long and tapered. Wrists are snug fitting. These gloves fit your hand because they're made on sculptured hand forms. They're sized accurately, they allow flexing without tension, they're really comfortable.

Tissue-thin, strong, comfortable . . . that's the combination that makes B. F. Goodrich "Miller" brand surgeons' gloves the preferred gloves. That's true no matter which of the three types you choose:

B. F. Goodrich "Miller" brand surgeons' gloves — Regular wrist. Sizes 6 to 10, including half sizes. White or brown. "Smooth" or "Cutinized" surface.

B. F. Goodrich "Miller" brand examination gloves — Short length cuff. Sizes 7 to 9, including half sizes. White only.

The new B. F. Goodrich "Special Purpose" glove — Created for those who develop an allergic dermatitis when using ordinary rubber gloves. Sizes 6½ to 9½, including half sizes. Look for the identifying green band on the cuff.

Order B. F. Goodrich "Miller" brand gloves from your hospital or surgical supply dealer. *The B. F. Goodrich Company, Sundries Division, Akron, Ohio.*

B.F. Goodrich

Surgeons' Gloves

Graphic Diagnosis

While taking an obstetrical history as an intern I asked the patient, "Is this your first pregnancy?"

"Well, not exactly doctor. About two years ago my stummach started getting bigger and I didn't see no menastrashun for nine months."

"Oh, then you've had a baby?"

"No sir, there wasn't no baby."

"Well, what did your doctor say was wrong?"

"The doctor said I had a misconception!"

A very comprehensive term, I thought, for psuedocyesis.—P.H.S.

"Tsk, tsk, tsk!"

Baffled But Willing

I gave the patient the glass and the usual lingo: "Give me a specimen, please, and open the door when you're through." The door never opened, so I cautiously opened it, only to be greeted with the empty glass.

Before I could say anything, the patient asked, "Did you want me to spit in it?"—C.G.

Hour after hour, day after day, a nonagenarian psychotic patient spent all her time reading the Bible. She told me, "I am cramming for the finals."—T.Z.

THROAT SPECIALISTS REPORT
ON 30-DAY TEST OF CAMEL SMOKERS:

"Not one single case of throat irritation due to smoking Camels!"

Yes, these were the findings of throat specialists after a total of 2,470 weekly examinations of the throats of hundreds of men and women who smoked Camels—and only Camels—for 30 consecutive days.

ROBERT LAMKIN
Personnel Director
One of hundreds of people from coast to coast who made the 30-Day Camel mildness test under the observation of throat specialists.

R. J. Reynolds Tobacco Co., Winston-Salem, N. C.

ACCORDING TO A NATIONWIDE SURVEY:

MORE DOCTORS SMOKE CAMELS

THAN ANY OTHER CIGARETTE

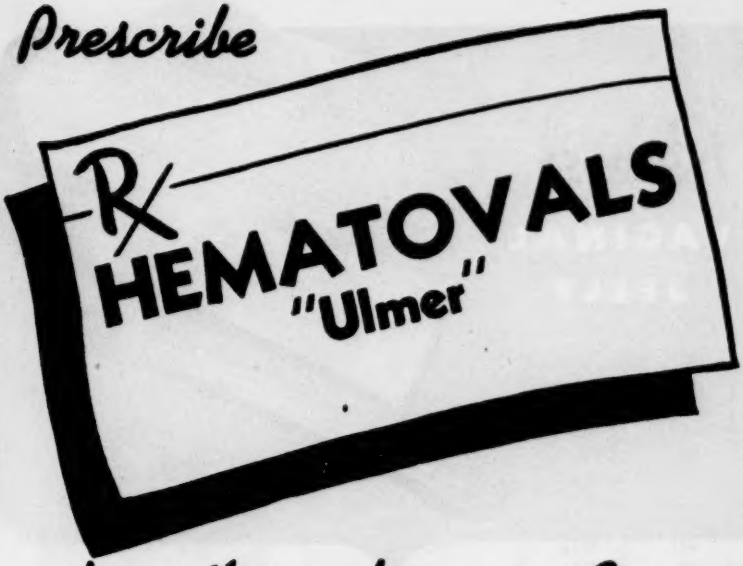
Yes, doctors smoke for pleasure, too! In a nationwide survey, three independent research organizations asked 113,597 doctors what cigarette they smoked. The brand named most was Camel.

INDEX TO ADVERTISERS

The publishers are not responsible for any errors or omissions.

American Ferment Company, Inc. 92
Armstrong Cork Company 22
Baby Bathinette Corporation 158
Barnes, A. C., Company 13, 160
Bauer & Black 43
Becton, Dickinson & Company 4
Beech-Nut Packing Co. 145
Breon, George A., & Co. 121
Brewer & Company, Inc. 109
Burnham Soluble Iodine Co. 162
Carnation Co. 153
Carnrick, G. W., Company 48
Cereal Institute, Inc. 113
Chicago Pharmacal Co. 160
Ciba Pharmaceutical Products, Inc. ..... 3, 4th Cover
Clay-Adams Co., Inc. 144
Commercial Solvents Corporation 101
Crookes Laboratories, Inc. 143
Cutter Laboratories 91
Davol Rubber Company 141
Desitin Chemical Co. 137
Dome Chemicals, Inc. 162
Ethicon Suture Laboratories 40-41
Fleet, C. B., Co., Inc. 139
French, R. T., Co., The 123
General Electric X-Ray Corp. 111
Geriatrics 155
Goodrich, B. F., Co., The 159
Harrower Laboratory, Inc., The 117
Hoffmann-La Roche Inc. 35
International Pharmaceutical Corp. 154
Johnson & Johnson 128-129
Keller-Knett Mfg. Company 103
Kinney & Company 121
Knox Gelatine 119
Lakeside Laboratories, Inc. 7
Lanteen Medical Laboratories, Inc. 147
Leeming, Thos., & Co., Inc. 5
Lilly, Eli, & Company 10
MacGregor Instrument Company 15
Mallinckrodt Chemical Works 99
McLintock, Duncan C., Co., Inc. 37
McNeil Laboratories, Inc. 24-25
Mead Johnson & Co. 97
Merrell, The Wm. S. Company ..... 2nd Cover
Miles Laboratories, Inc. 30-31
National Drug Company, The 95
Nepera Chemical Co., Inc. 107
Owens-Corning Fiberglas Corp. 105
Paravox, Inc. 158
Parke, Davis & Company 39
Pelton & Crane Company, The 127
Pfizer, Chas., & Co., Inc. 16-17
Pitman-Moore Company 125
Ralston Purina Company 46
Rand Pharmaceutical Co., Inc. 138
Raymer Pharmacal Co. 135
Raytheon Manufacturing Co. 26
Reed & Carnrick 19, 20
Reynold, R. J., Tobacco Company 161
Robins, A. H., Company, Inc. 29, 47, 133
Roerig, J. B., & Company 33
Sanborn Company 44
Schering Corporation 149
Schmid, Julius, Inc. 164
Scholl Mfg. Co., Inc., The 156
Searle, G. D., & Company 50-51
Sklar, J., Mfg. Co. 158
Smith, Kline & French Laboratories 27
Strauss Laboratories 156
Tampax Incorporated 157
Taylor, W. A., & Co. 32
Toldey Company, The 160
Ulmer Pharmacal Company 163
U. S. Brewers Foundation 134
Varick Pharmacal Co., Inc. 42
Walker Vitamin Products, Inc. 8-9, 28
Wampole, Henry K., & Co., Inc. 151
Warner, Wm. R., & Company, Inc. 114
Welch Allyn, Inc. 49
Westwood Pharmaceuticals 140
Whitehall Pharmacal Company 36
Whittier Laboratories 45
Winthrop-Stearns, Inc. ..... 3rd Cover
Wyeth Incorporated 23, 52
Zymenol (Otis E. Glidden & Co.) 146

Prescribe



for Hypochromic Anemia

HEMATOVALS "Ulmer" are a highly effective Iron therapy and a well-balanced dietary supplement. The Iron, Liver Concentrate and B-Complex Vitamins are so balanced that prompt restoration of satisfactory hemoglobin levels is assured.

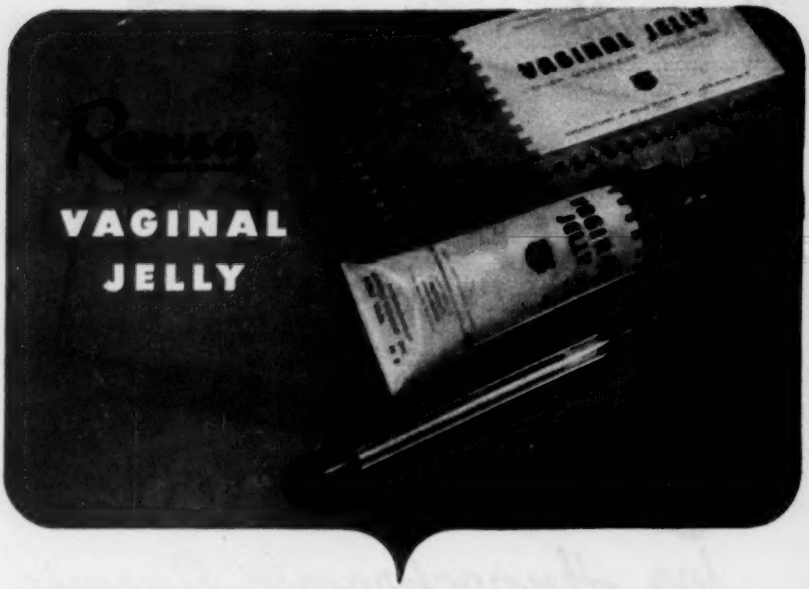
NEW IMPROVED FORMULA

Ferrous Sulfate, Dried (Eq. to 3.6 grs. USP)	2.5 Grs.
Liver Concentrate	2.5 Grs.
Vitamin B_1 (Thiamine Hcl. 333 USP Units)	1.000 Mg.
Vitamin B_2 (Riboflavin)	1.000 Mg.
Vitamin B_6 (Pyridoxine Hcl.)	0.050 Mg.
Calcium Pantothenate	0.250 Mg.
Niacin Amide	3.300 Mg.

HEMATOVALS "Ulmer" are well tolerated, easily administered, economical. Prescribe this outstanding product for a more rapid . . . and complete . . . hemoglobin response in the treatment of hypochromic anemia.

Prescribe two HEMATOVALS "Ulmer" at meal time.
NOT ADVERTISED TO THE LAITY

ULMER PHARMACAL COMPANY
MINNEAPOLIS Manufacturing Chemists MINNESOTA



PROVIDES PROTECTION WITHOUT IRRITATION

Evidence obtained by direct-color photography shows that the cervix remains occluded for as long as ten hours after an application of "RAMSES"* Vaginal Jelly.

"RAMSES" Vaginal Jelly immobilizes sperm in the fastest time recognized under the authoritative Brown and Gamble method of measuring the spermatocidal power of vaginal jellies or creams. This has been established by repeated tests for spermatocidal activity conducted by an accredited independent laboratory.

Clinical observation of patients receiving daily applications of "RAMSES" Vaginal Jelly for three-week periods reveals no evidence of irritation or other untoward effect.

"RAMSES" Vaginal Jelly is acceptable to even the most fastidious patient because it provides efficient protection without leakage or excessive lubrication. It is available at all pharmacies in regular and large tubes; the regular tube is also available in a package containing a measured applicator.

ACTIVE INGREDIENTS: Dodecaethyleneglycol Monolaurate 5%, Boric Acid 1%, Alcohol 5%.

Julius Schmid, Inc. gynecological division
423 West 55th Street, New York 19, N. Y.
quality first since 1883

*The word "RAMSES" is a registered trademark of Julius Schmid, Inc.

Amebiasis

OCCURS THROUGHOUT THE U. S. A.

Intestinal • Extra-Intestinal (Hepatic)

"The geographical distribution of amebiasis is world-wide."[1] "Although amebiasis is often considered a tropical disease, it is prevalent even in certain arctic regions."[2]

INCIDENCE OF AMEBIASIS IN THE UNITED STATES

STATE	NO. EXAMINED	NO. POSITIVE	% POSITIVE
New York[3]	350	34	9.7
Pennsylvania[4]	1060	43	4.1
Minnesota[5]	5000	535	10.7
Illinois[6]	4478	601	13.4
Oklahoma[7]	924	92	10.0
Washington[8]	1526	164	10.7
California[9]	1341	92	6.9
Louisiana[10]	4270	355	8.3
Tennessee[11]	20,237	2,305	11.4
New Mexico[12]	1284	190	14.8
Total	**40,470**	**4,411**	**10.9**

Intestinal. Comparative in vitro studies have shown that Milibis, the new intestinal amebacide, is the most powerful of the drugs commonly used against Endamoeba histolytica. In clinical tests Milibis has given excellent results in thousands of cases. In 82.6 per cent of those that could be followed parasitologically for prolonged periods, negative stools were obtained consistently after one to four courses of Milibis treatment.[13] There were virtually no side effects.

Dose for adults: 2 tablets three times daily for seven days. If the stools remain positive the course should be repeated. Supplied in tablets of 0.25 Gm., bottles of 50.

MILIBIS®
Bismuthoxy Glycolylarsanilate

Extra-Intestinal. Aralen, an established antimalarial of relatively low toxicity, has been found remarkably effective in the treatment of extra-intestinal amebiasis (amebic hepatitis).[14-21] This discovery is particularly important because of the great frequency of extra-intestinal involvement in chronic amebiasis.

Dose for adults: 4 tablets daily in divided doses for two days, followed by 2 tablets daily for two to three weeks. Administer before, after or together with Milibis treatment. Supplied in tablets of 0.25 Gm., bottles of 100 and 1000.

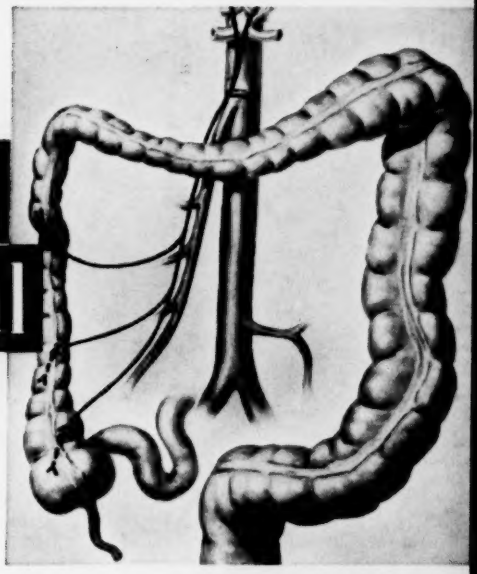
ARALEN®
DIPHOSPHATE
Chloroquine Diphosphate

Write for detailed information.

Winthrop-Stearns INC.
NEW YORK, N. Y. WINDSOR, ONT.

1. Craig, C. F.; 2. Almy, T. P.; 3. Towse, R. C., et al.; 4. Wenrich, D. H., et al.; 5. Sanford, M. F.; 6. Spector, B. K.; 7. McMullen, D. B., and Gray, J. K.; 8. Cresswell, S. M., and Wallace, C. E.; 9. Wight, T.; 10. Faust, E. C., and Headlee, W. H.; 11. Meleney, H. E., et al; 12. Spector, B. K., and Hardy, A. V.; 13. Berberian, D. A.; 14. Conan, N. J.; 15. Shookhoff, H. B.; 16. Sodeman, W. A.; 17. Murgatroyd, F., and Kent, R. P.; 18. Basnuevo, J., and Estarli, E. G.; 19. D'Antoni, J. S.; 20. Manson-Bahr, P.; 21. Emmett, J. Full bibliography on request.

Trasentine-Phenobarbital



An ideal antispasmodic for prolonged use

TRASENTINE-PHENOBARBITAL is singularly free of side effects such as dryness of the mouth, pupillary dilatation and palpitation of the heart. TRASENTINE has very little cumulative effect even in large doses over a long period of time, although it is a powerful antispasmodic. Thus TRASENTINE-PHENOBARBITAL is an ideal spasmolytic agent for patients who must be treated over many months.

Prolonged illness produces an anxiety state in many patients which may noticeably retard improvement. TRASENTINE-PHENOBARBITAL relieves psychic tension and speeds recovery of these patients.

Wide use is being made of TRASENTINE-PHENOBARBITAL in daily practice to relieve pain and spastic conditions of the abdominal viscera associated with hyper-excitability of the autonomic system.

One or two tablets may be given three or four times a day. If used over long periods of time, therapy should be interrupted periodically because of the phenobarbital content.

TRASENTINE-PHENOBARBITAL — Tablets (yellow) contain 50 mg. TRASENTINE hydrochloride with 20 mg. phenobarbital.

TRASENTINE — Tablets (white) of 75 mg.; Suppositories of 100 mg.; Ampuls of 50 mg.

Ciba PHARMACEUTICAL PRODUCTS, INC., SUMMIT, NEW JERSEY

TRASENTINE® (brand of adiphenine) 2/1569M